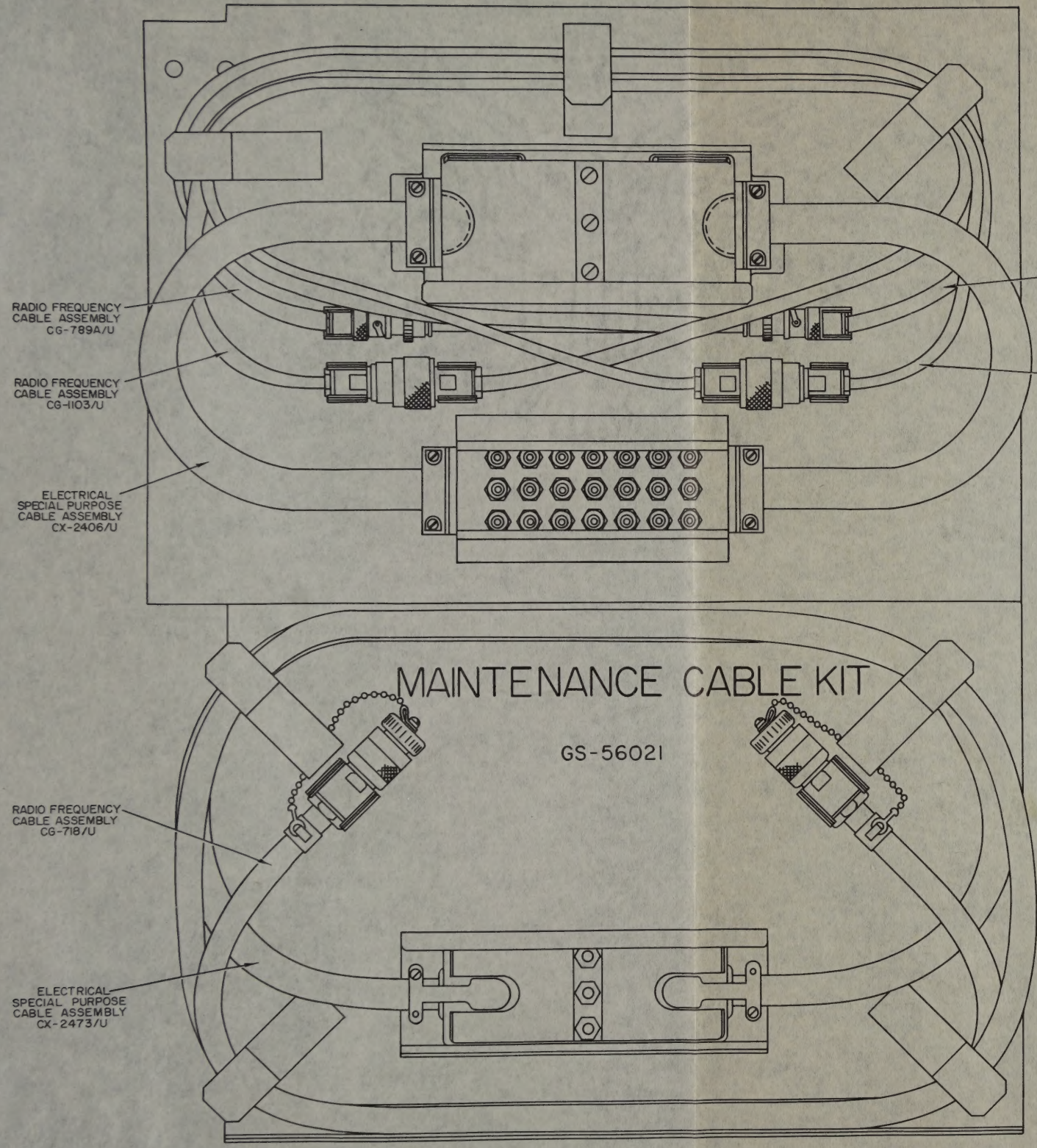
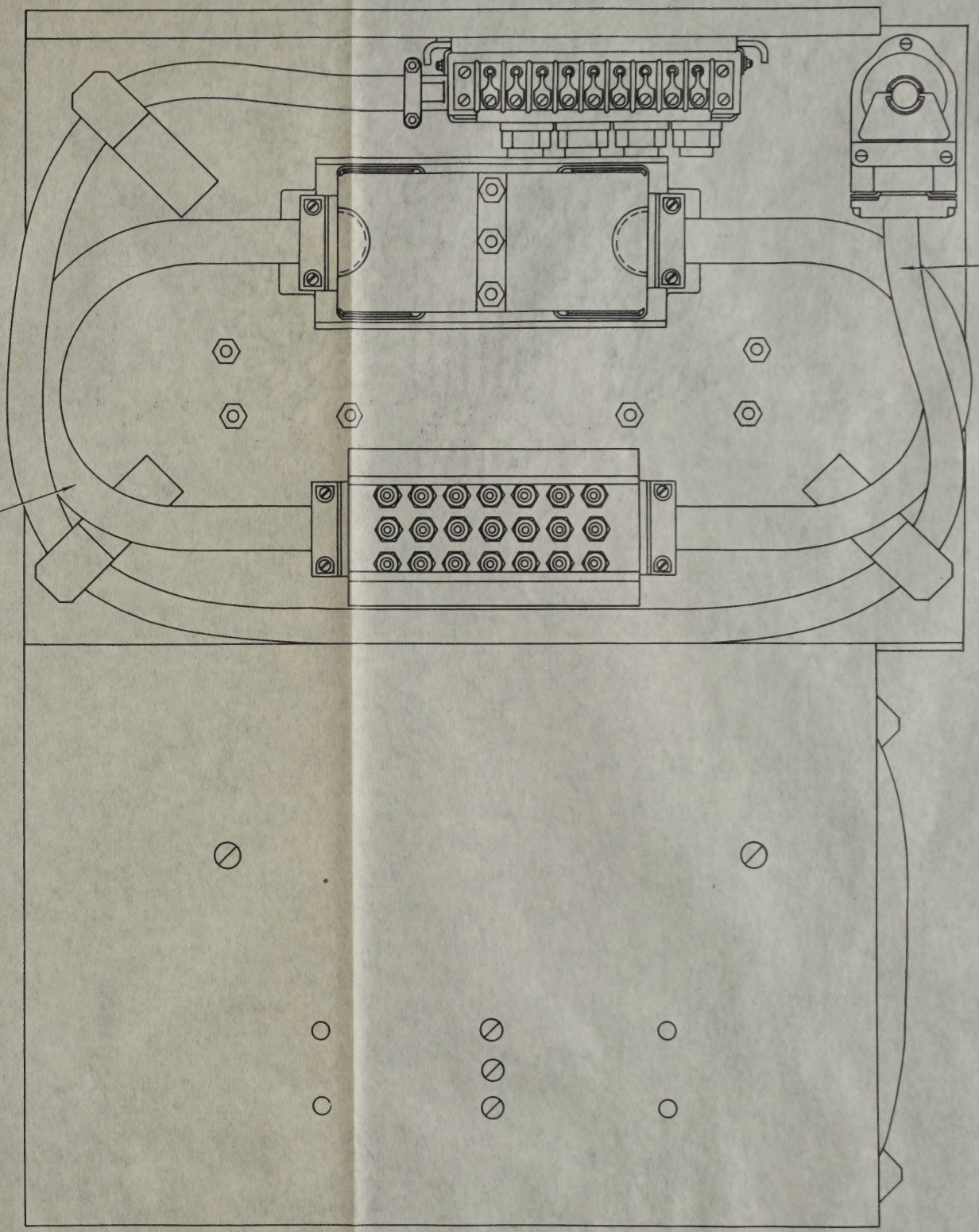


Figure 30. Maintenance cable holding frame for



RIGHT-SIDE VIEW

TM687-49

ories Case CY-1343/TRC, left and right side views

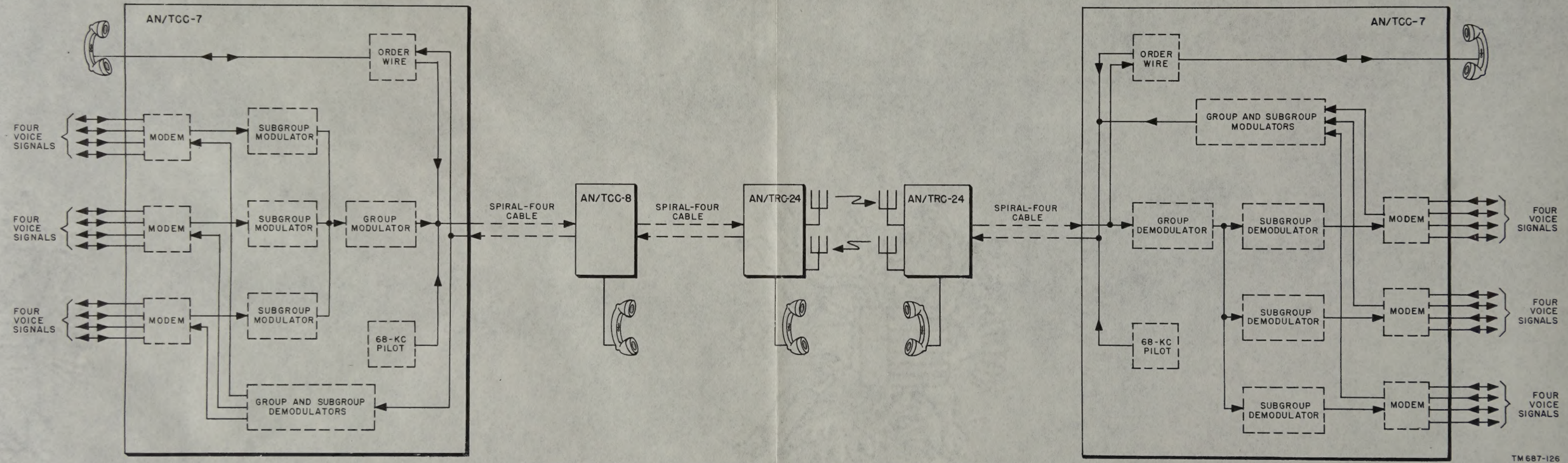


Figure 134. Telephone carrier system, AN/TCC-7, combined with Radio Set AN/TRC-24, block diagram.

381345 O - 56 (In pocket)

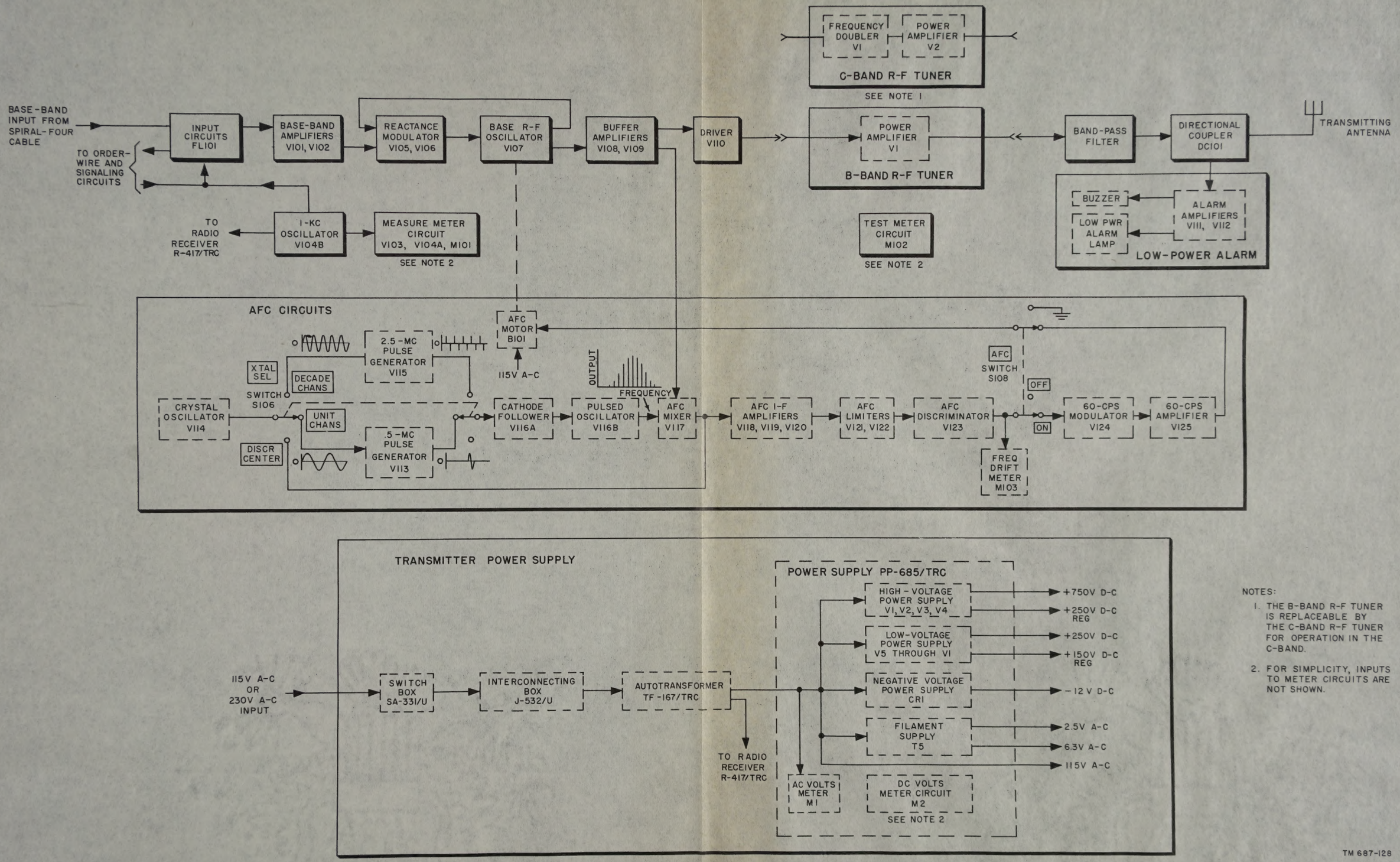
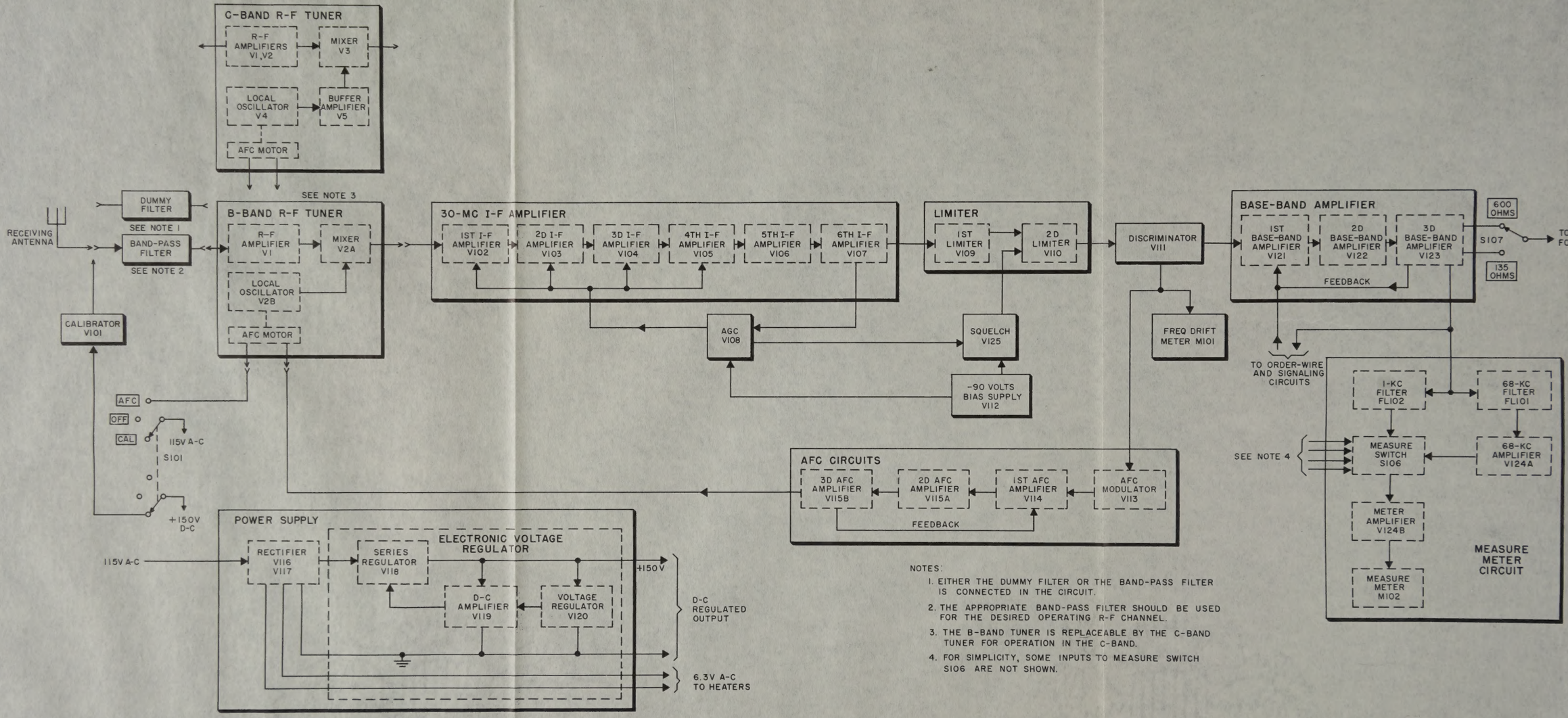


Figure 136. Transmitter circuits, block diagram.

NOTES:

1. THE B-BAND R-F TUNER IS REPLACEABLE BY THE C-BAND R-F TUNER FOR OPERATION IN THE C-BAND.
2. FOR SIMPLICITY, INPUTS TO METER CIRCUITS ARE NOT SHOWN.

TM 687-128



NOTES:

1. EITHER THE DUMMY FILTER OR THE BAND-PASS FILTER IS CONNECTED IN THE CIRCUIT.
2. THE APPROPRIATE BAND-PASS FILTER SHOULD BE USED FOR THE DESIRED OPERATING R-F CHANNEL.
3. THE B-BAND TUNER IS REPLACEABLE BY THE C-BAND TUNER FOR OPERATION IN THE C-BAND.
4. FOR SIMPLICITY, SOME INPUTS TO MEASURE SWITCH S106 ARE NOT SHOWN.

Figure 174. Receiver circuits, block diagram.

TM 687-163

381345 O - 56 (In pocket)

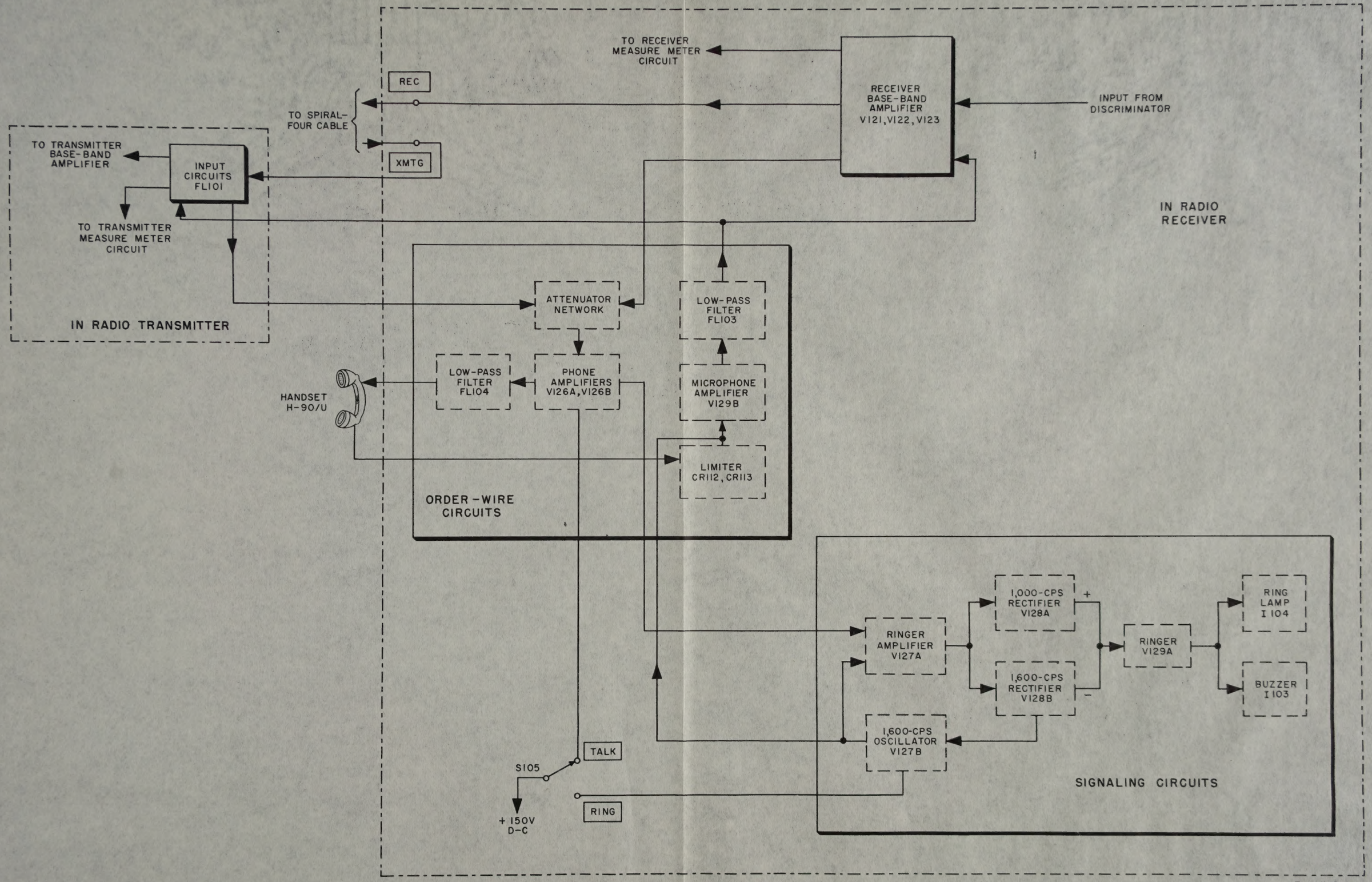
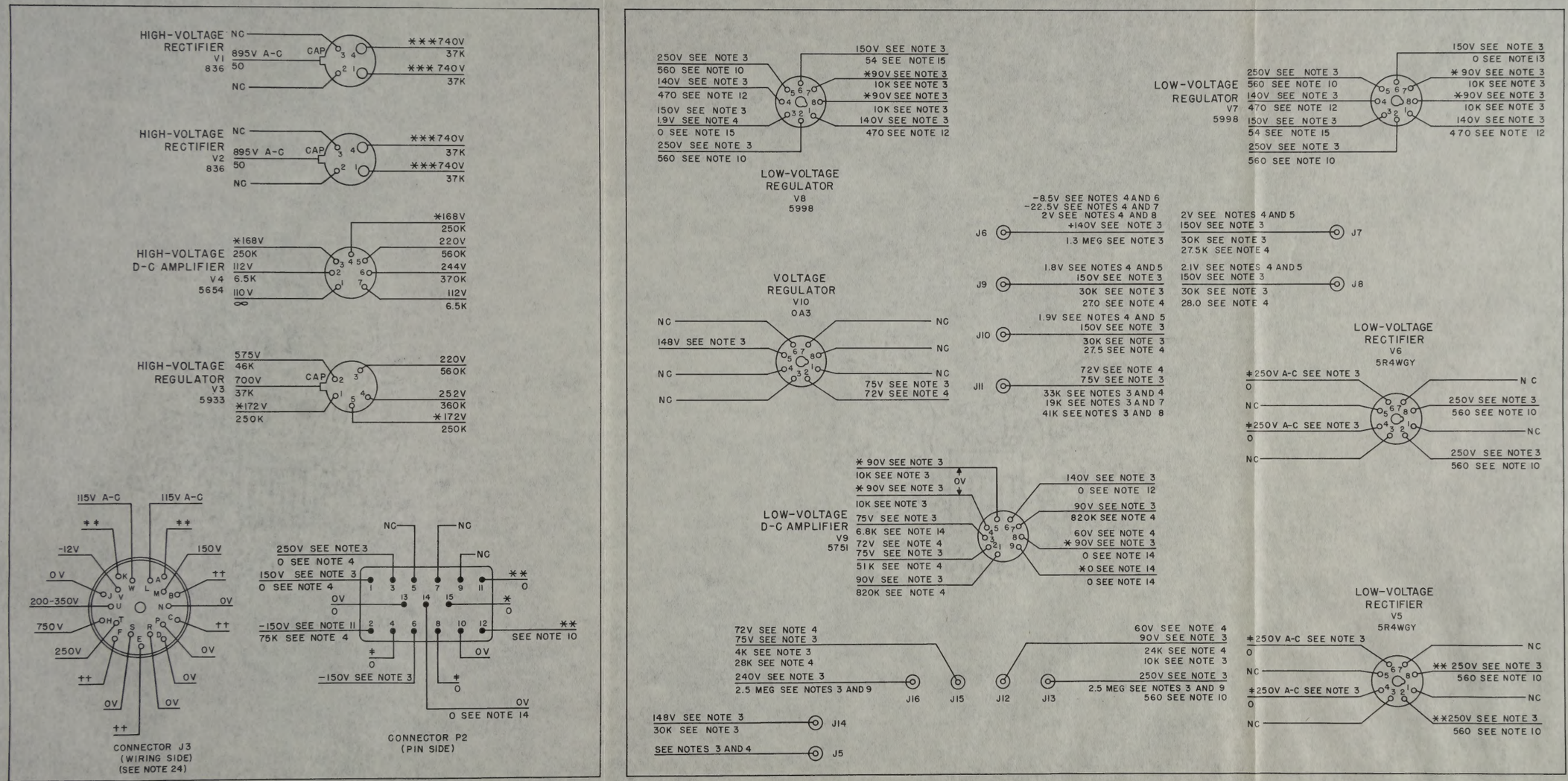


Figure 186. Order-wire and signaling circuits, block diagram.

TM687-368



NOTES:

1. APPLY 115V A-C INPUT WHEN MEASURING VOLTAGES; DISCONNECT 115V A-C MEASURING RESISTANCES.
2. NC INDICATES NO CONNECTION.
3. ALWAYS CONNECT NEGATIVE TERMINAL OF VOLTMETER TO TEST JACK J5 WHEN MEASURING VOLTAGE.
4. ON SOME PLUG-IN ASSEMBLIES ON ORDER NO. 16881I-PHILA-51 TEST JACK J5 IS NOT CONNECTED TO CHASSIS. RESISTANCE MEASUREMENTS DEPEND ON THE ABOVE AND WILL ALSO VARY WITH LEAKAGE RESISTANCE.
5. VOLTAGES MEASURED FROM JACKS J7, J8, J9 AND J10 TO JACK J14 VARY WITH THE D-C LOAD BUT SHOULD BE APPROXIMATELY EQUAL TO EACH OTHER.
6. ADJUST 150V ADJ CONTROL TO NORMAL POSITION.
7. ADJUST 150V ADJ CONTROL TO EXTREME COUNTER-CLOCKWISE POSITION.
8. ADJUST 150V ADJ COUNTROL TO EXTREME CLOCKWISE POSITION.
9. ALLOW 10 MINUTES FOR OHMMETER TO CHARGE CAPACITORS BEFORE READING.
10. MEASURE TO JACK J16.
11. VOLTAGE VARIES WITH 150V ADJ CONTROL.
12. MEASURE TO JACK J6.
13. MEASURE TO JACK J7.
14. MEASURE TO JACK J12.
15. MEASURE TO JACK J10.
16. * INDICATES 64V A-C BETWEEN PINS.
17. ** INDICATES 5.1V A-C BETWEEN PINS.
18. *** INDICATES 2.7V A-C BETWEEN PINS.
19. + INDICATES 5.1V D-C BETWEEN PINS.
20. ++ INDICATES 6.3V A-C BETWEEN PINS.
21. # INDICATES 500V A-C BETWEEN PINS.
22. ## INDICATES 2.5V A-C BETWEEN PINS.
23. ALL VOLTAGES ARE POSITIVE UNLESS OTHERWISE SPECIFIED.
24. STRAP PINS N AND S TOGETHER FOR VOLTAGE MEASUREMENTS. UNLESS OTHERWISE SPECIFIED, MEASURE TO PIN S. REMOVE STRAP UPON COMPLETION.

TM687-376

Figure 199. Power Supply PP-685/TRC, voltage and resistance diagram.

381345 O - 56 (In pocket)

BASE-BAND AMPL AND METERING CIRCUIT

S102 SW POSITION	SWITCH PANEL MARKING
1	RF CHAN TUNE
2	IKC ADJ
3	MTR CAL
4	DISCR RF DRIVE
5	IKC IN
6	68KC IN
7	MOD 1KC IN
8	MOD 68KC IN
9	MOD ADJ
SEE NOTE 13	

S106 SW POSITION	SWITCH PANEL MARKING
1	DECADE CHANS
2	UNIT CHANS
AND S107	DISCR CENTER
SEE NOTE 13	

Figure 268. Radio Transmitte

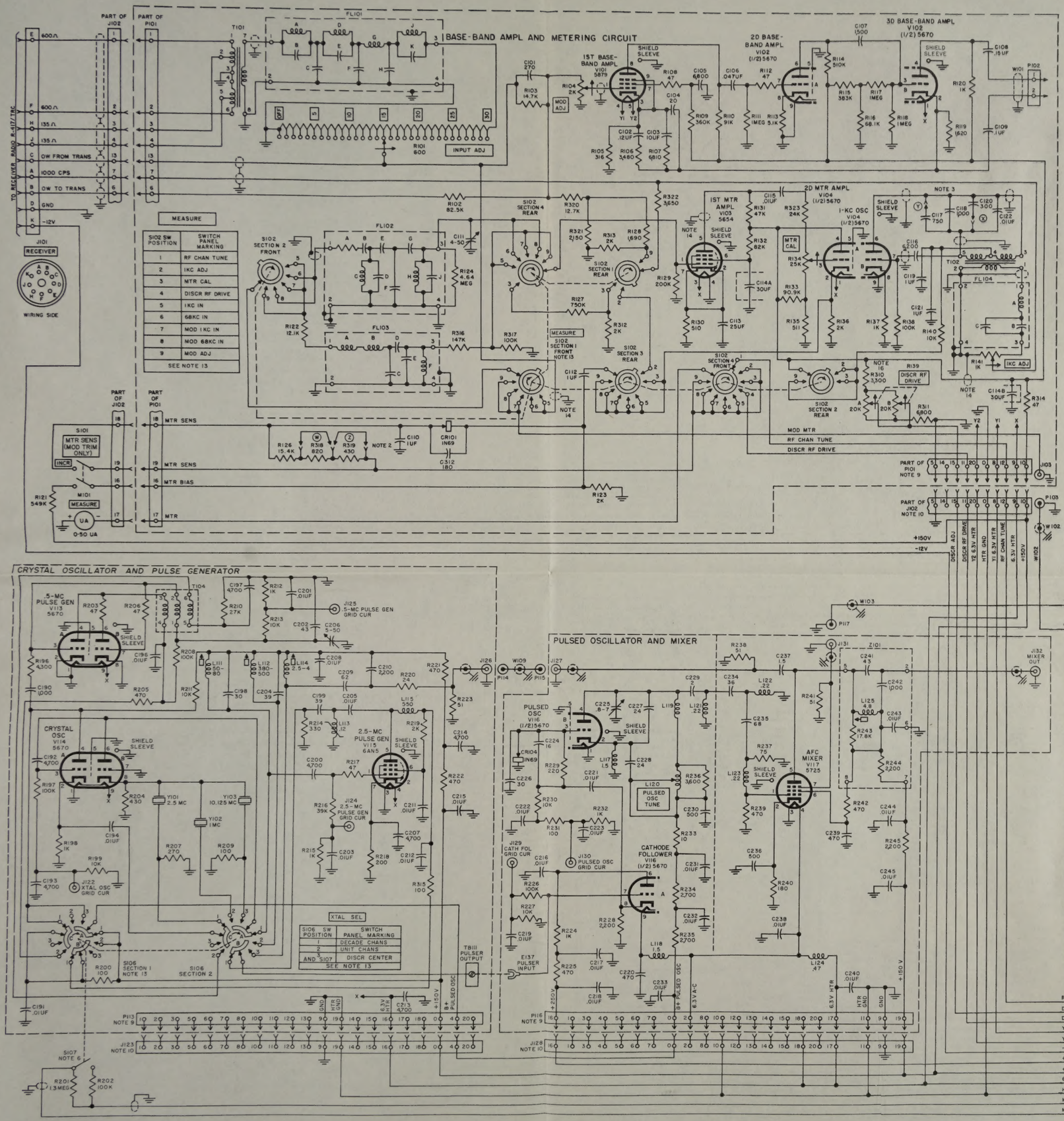
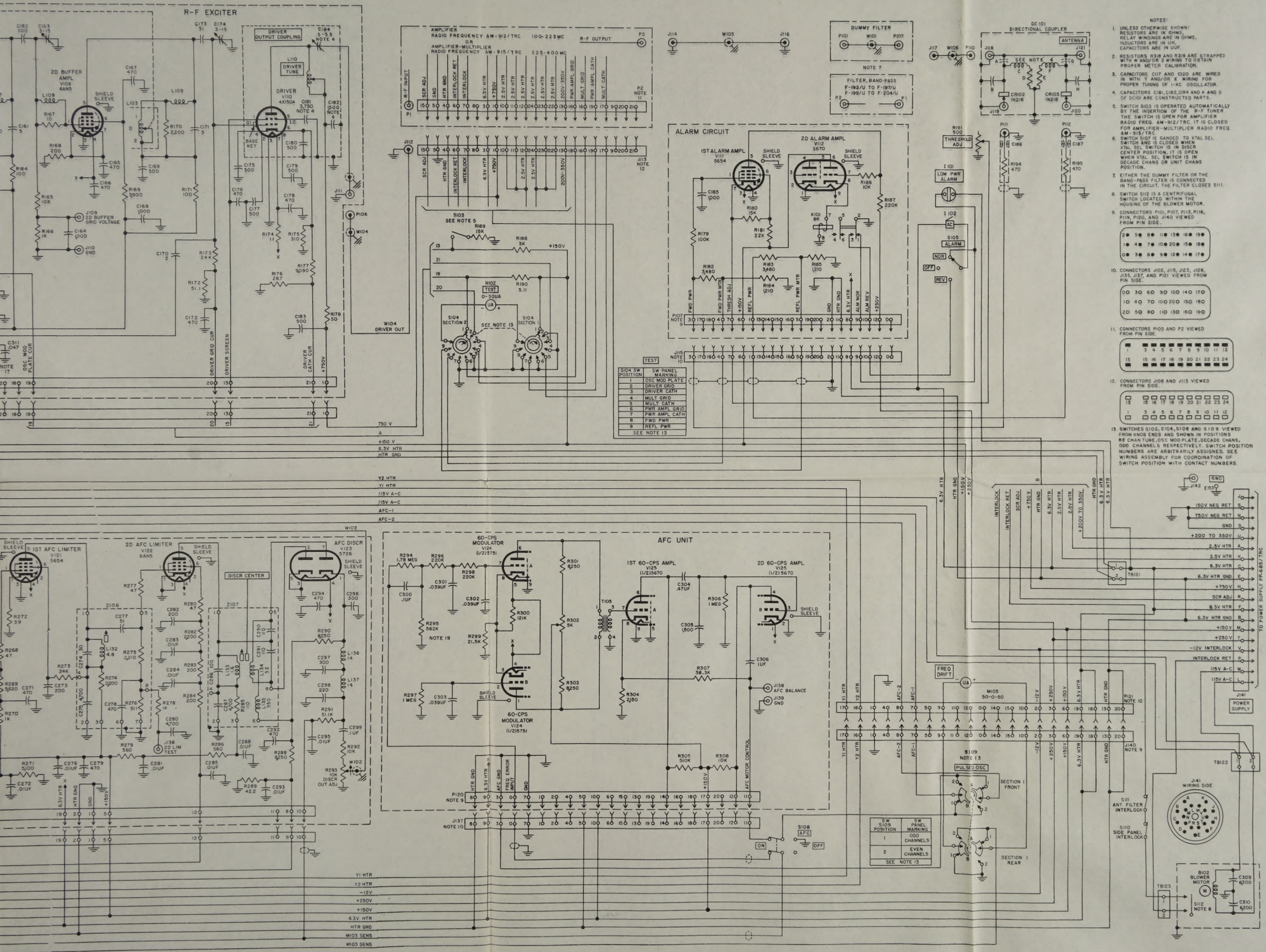


Figure 268. Radio Transmi



- T-302/TRC, schematic diagram.

NOTES:

1. UNLESS OTHERWISE SHOWN: RESISTORS ARE IN OHMS, RELAY WINDINGS ARE IN OHMS, INDUCTORS ARE IN UH, CAPACITORS ARE IN UUF.
2. RESISTORS R318 AND R319 ARE STRAPPED WITH W AND/OR Z WIRING TO OBTAIN PROPER METER CALIBRATION.
3. CAPACITORS C117 AND C120 ARE WIRED IN WITH Y AND/OR X WIRING FOR PROPER TUNING OF 1-KC OSCILLATOR.
4. CAPACITORS C181, C182, C184 AND A AND G OF DC101 ARE CONSTRUCTED PARTS.
5. SWITCH S103 IS OPERATED AUTOMATICALLY BY THE INSERTION OF THE R-F TUNER. THE SWITCH IS OPEN FOR AMPLIFIER RADIO FREQ. AM-912/TRC. IT IS CLOSED FOR AMPLIFIER-MULTIPLIER RADIO FREQ. AM-915/TRC.
6. SWITCH S107 IS GANGED TO XTAL SEL. SWITCH AND IS CLOSED WHEN XTAL SEL SWITCH IS IN DISCR CENTER POSITION. IT IS OPEN WHEN XTAL SEL SWITCH IS IN DECADE CHANS OR UNIT CHANS POSITION.
7. EITHER THE DUMMY FILTER OR THE BAND-PASS FILTER IS CONNECTED IN THE CIRCUIT. THE FILTER CLOSES S111.
8. SWITCH S112 IS A CENTRIFUGAL SWITCH LOCATED WITHIN THE HOUSING OF THE BLOWER MOTOR.
9. CONNECTORS P101, P107, P113, P116, P119, P120, AND J140 VIEWED FROM PIN SIDE.

10. CONNECTORS J102, J115, J123, J128, J135, J137, AND P121 VIEWED FROM PIN SIDE.

11. CONNECTORS P105 AND P2 VIEWED FROM PIN SIDE.

12. CONNECTORS J108 AND J113 VIEWED FROM PIN SIDE.

13. SWITCHES S102, S104, S106 AND S109 VIEWED FROM KNOB ENDS AND SHOWN IN POSITIONS RF CHAN TUNE, OSC MOD PLATE, DECADE CHANS, ODD CHANNELS RESPECTIVELY. SWITCH POSITION NUMBERS ARE ARBITRARILY ASSIGNED. SEE WIRING ASSEMBLY FOR COORDINATION OF SWITCH POSITION WITH CONTACT NUMBERS.
14. SHIELDS USED ON TYPE 3 BASE-BAND AMPLIFIERS ON ORDER NO. 16811-PHILA-51.
15. C312 USED ON TYPE 4 METERING CIRCUITS ON ORDER NO. 16811-PHILA-51.
16. R310 IS 3.3K ON TYPE 1 BASE-BAND AMPLIFIERS ON ORDER NO. 16811-PHILA-51.
17. C311 USED ON TYPE 4 R-F EXCITERS ON ORDER NO. 16811-PHILA-51. AND ON ORDER NO. 32146-PHILA-51.
18. R148 AND R149 NOT USED ON TYPE 5 R-F EXCITERS ON ORDER NO. 16811-PHILA-51. ALSO JUNCTION OF R142 AND R143 IS GROUNDED, AND C128, C129, J105, J106, R144, R145, AND R142 USED ONLY ON EARLY EQUIPMENT (ORDER NO. 16811-PHILA-51).
19. R295, R299, R300, R301, R302 AND R303 ARE 549K, 12.1K, 82.5K, 5110, 10K AND 5110 OHMS, RESPECTIVELY ON ORDER NO. 16811-PHILA-51 (SERIAL NUMBERS 65 AND ABOVE) AND ON ORDER NO. 32146-PHILA-51.
20. ALL AFC UNITS ARE INTERCHANGEABLE.

TM 687-391

381345 O - 56 (In pocket)

r T-302/TRC, schematic diagram.

TM687-391

381345 O - 56 (In pocket)

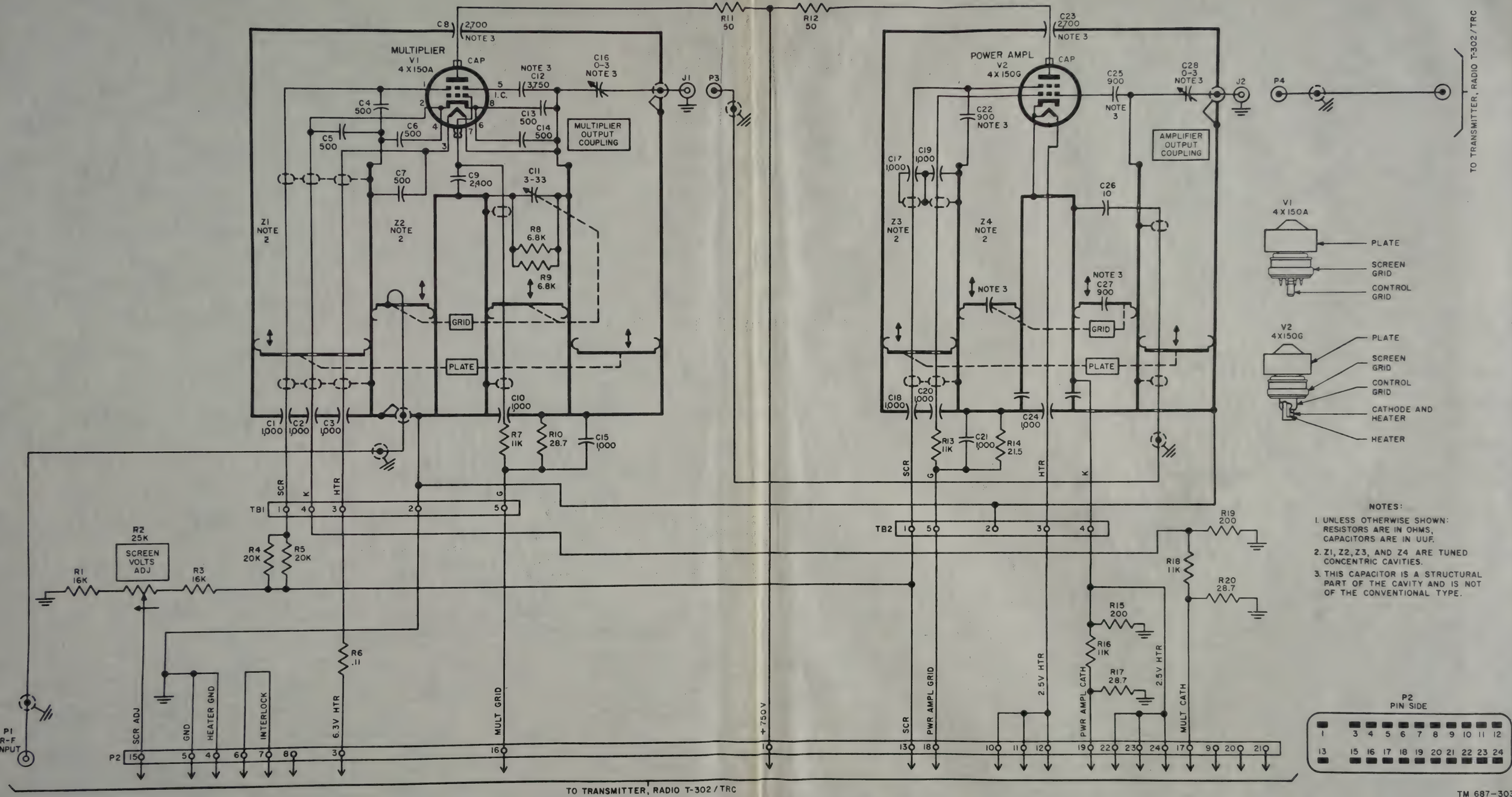


Figure 270. Radio Frequency Amplifier-Multiplier AM-915/TRC (transmitter C-band rf tuner), schematic diagram

TM 687-303

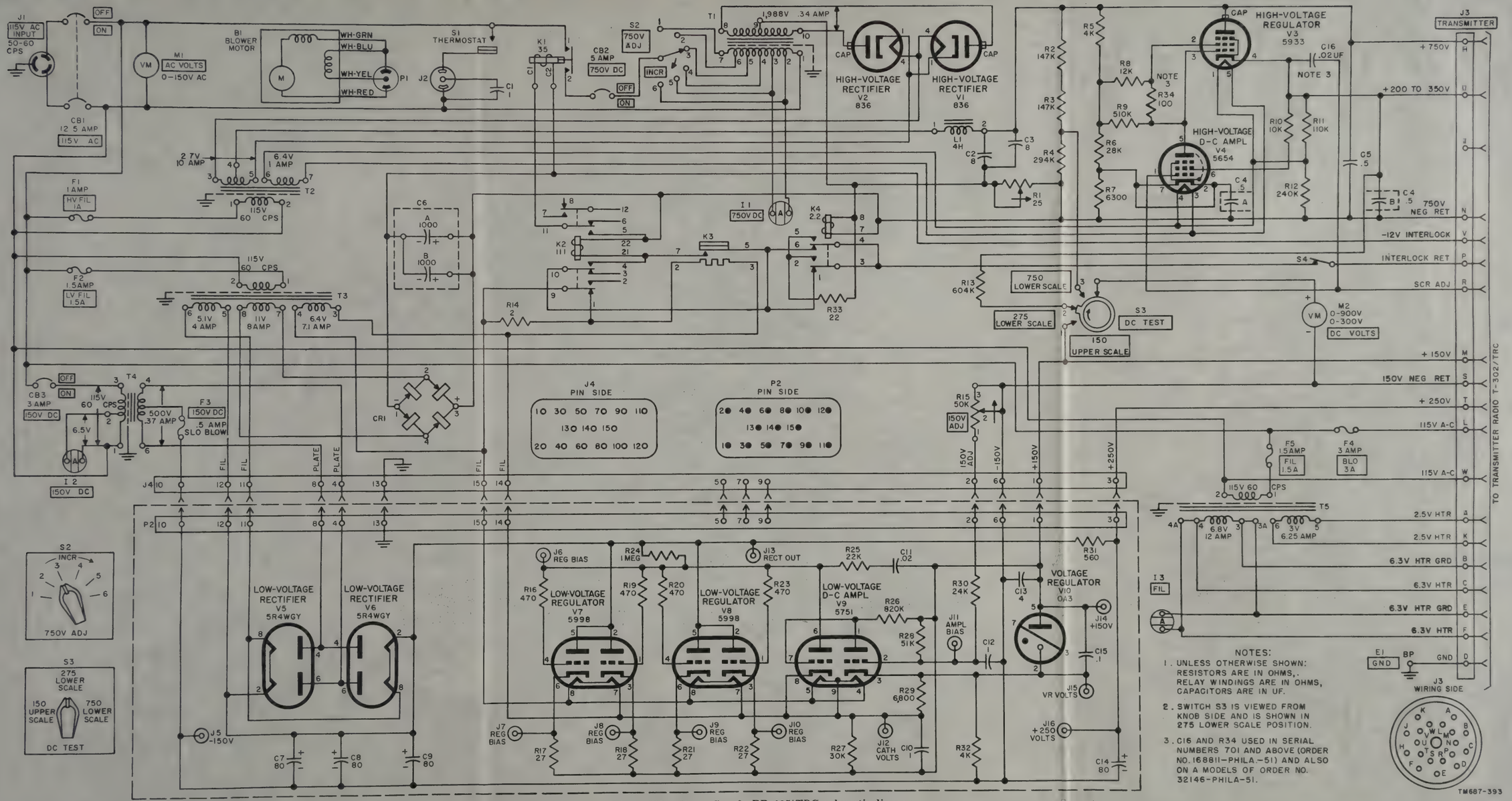


Figure 275. Power Supply PP-685/TRC, schematic diagram.

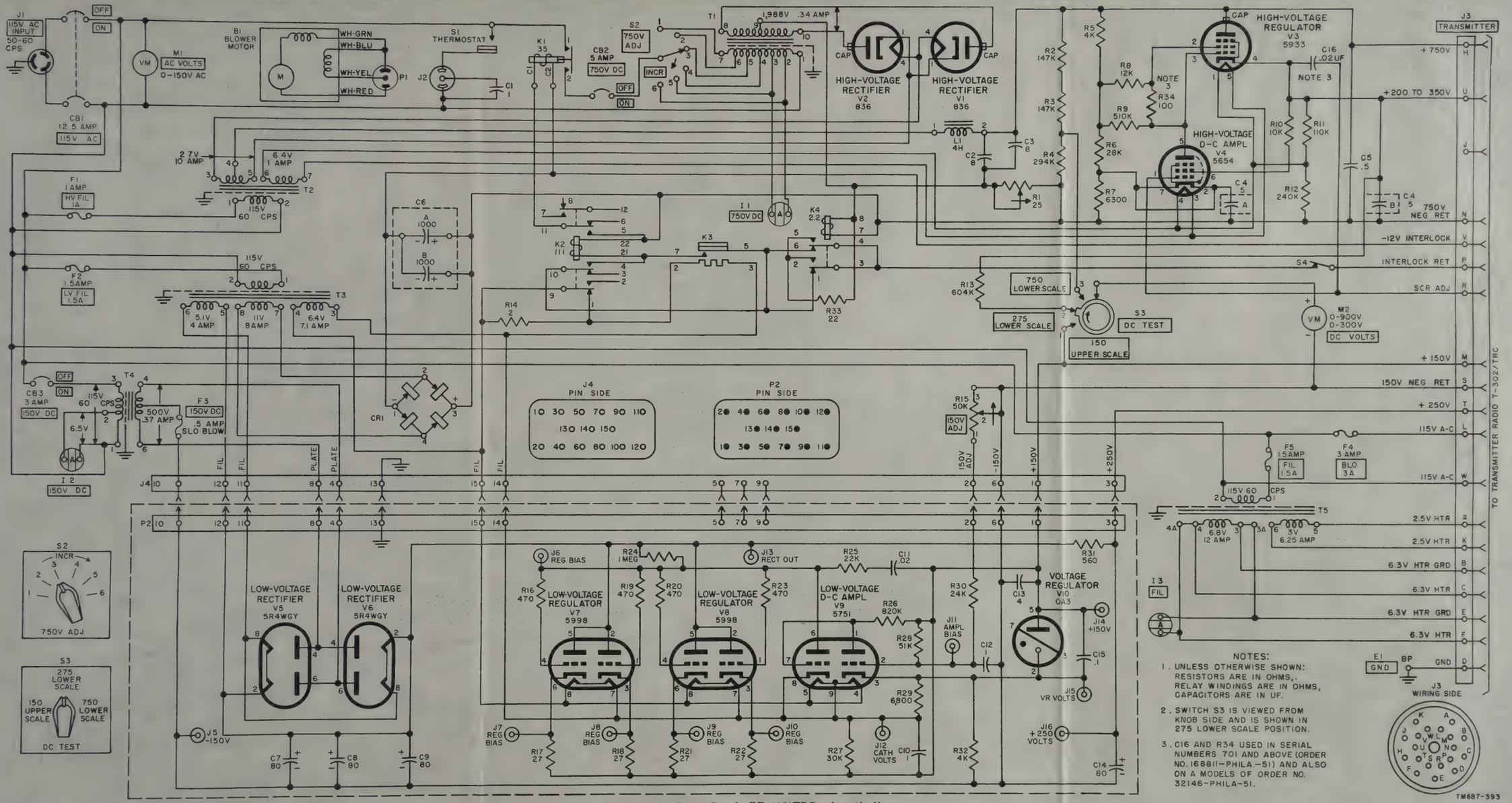


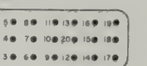
Figure 275. Power Supply PP-685/TRC, schematic diagram.

ANTENNA
CAL OUT
DUMMY FILTER
FILTER, BAND PASS
F-192/U TO F-197/U
F-199/U TO F-204/U
NOTE 3
AMPLIFIER-CONVERTER AM 913/TRC
OR
AMPLIFIER-CONVERTER AM 914/TRC
30-MC I-F AMPLIFIER
1ST I-F AMPL
2D I-F AMPL
3D I-F AMPL
4TH I-F AMPL
5TH I-F AMPL
CALIBRATOR
CRYSTAL OSCILLATOR
HARMONIC GENERATOR
NOTE 16
SHIELD SLEEVE
INTERLOCK
GND
HTR GND
+150 V
6.3V A
6.3V B
AFC
MIXER MTR
OSC MTR
B+ MTR
NOTE 14
CAL
OFF
AFC
S101
AGC VOLTS
SQUELCH
GAIN ADJ
SIG LEV
E CATH
BASE-BAND AMPLIFIER AND ORDER WIRE
1ST BASE-BAND AMPL
2D BASE-BAND AMPL
3D BASE-BAND AMPL
OUTPUT ADJ
68-KC AMPL METER AMPL
1ST PHONE AMPL
2D PHONE AMPL
RINGER AMPL
1000-CPS RECT
RINGER
1600-CPS OSC
1600-CPS RECT
SEE FIG. 189 FOR ADDITIONAL CHANGES TO SIGNALING CIRCUIT
POWER SUPPLY
150-VOLT RECTIFIER
SERIES REGULATOR
D-C AMPLIFIER
VOLTAGE REGULATOR
VR TUBE VOLTAGE
REGULATED VOLTAGE
TO HEATERS
TO 115V 50-60 CPS
CB101 POWER
OFF
ON
115V 50-60 CPS
5.1V 4 AMP
6.4V 2.7AMP
I 101 POWER
13V 4.15 AMP
150V ADJ
J120
J121 AC
J122 RECT OUT D-C
J123 REG BIAS
J124 REG BIAS
J125 REG BIAS
J126 AMPL BIAS
J127 AMPL E CATHODE
J128 GND
J129 VR TUBE VOLTAGE
J130 REGULATED VOLTAGE
J131 WIRING SIDE
P113 WIRING SIDE
B101
P112
S103
T102
T103
T104
T105
T106
T107
FL101
FL102
W107

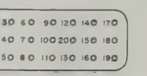
Figure 276. Radio Receiver R-417/TRC

NOTES:

1. UNLESS OTHERWISE SHOWN: RESISTORS ARE IN OHMS, RELAY WINDINGS ARE IN OHMS, INDUCTORS ARE IN UH, CAPACITORS ARE IN UUF.
2. SWITCH S106 VIEWED FROM KNOB END AND SHOWN IN OSC POSITION. SWITCH POSITION NUMBERS ARE ARBITRARILY ASSIGNED. SEE WIRING ASSEMBLY FOR COORDINATION OF SWITCH POSITION WITH CONTACT NUMBER.
3. EITHER THE DUMMY FILTER OR THE BAND-PASS FILTER IS CONNECTED IN THE CIRCUIT.
4. SWITCH S108 IS GANGED TO SQUELCH CONTROL AND IS OPEN ONLY WHEN SQUELCH CONTROL IS OPERATED TO EXTREME CLOCKWISE POSITION.
5. CONNECTORS P5, P107, P109, P111, P114, AND P115 VIEWED FROM PIN SIDE.

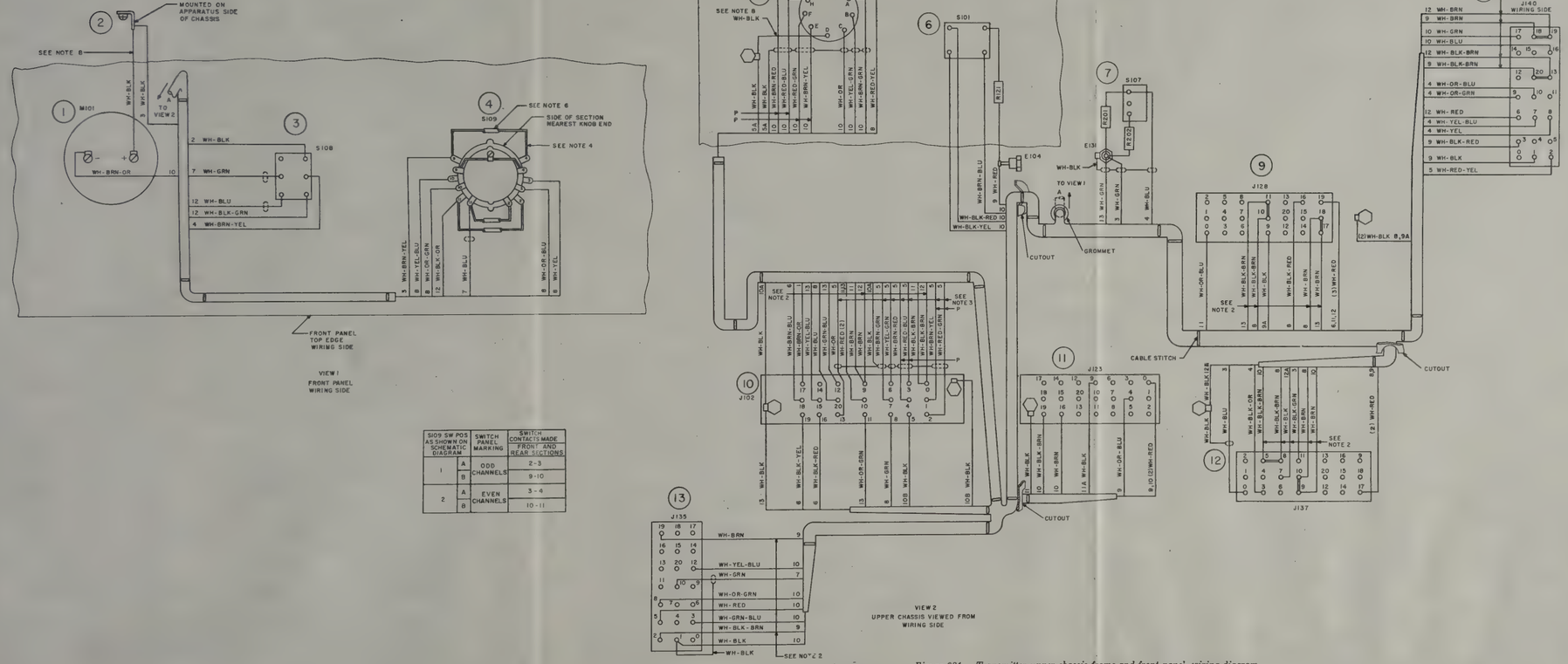


6. CONNECTORS J108, J112, J115, J119, J133 AND J134 VIEWED FROM PIN SIDE



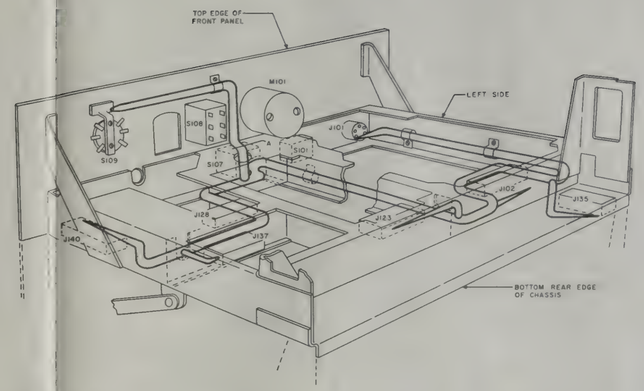
7. CAPACITORS C269, C270 AND C271 ARE STRAPPED IN OR OUT TO TUNE T106 TO 1600 CPS WITHIN LIMITS OF C268.
8. POWER SWITCH IS AT OFF, AND RELAYS ARE IN RELEASED POSITION IN THIS DIAGRAM
9. ON ORDER NO. 16811-PHILA-51 (TYPES 6 AND 7), AND ORDER NO. 32146-PHILA-51 (SERIAL NUMBERS 1 AND ABOVE) RESISTORS R233, R234, R271, AND R273 ARE 82K, 6800, 150K AND 3600 OHMS RESPECTIVELY. C264 AND C265 (TYPES 7 AND 8 ON ORDER NO. 16811-PHILA-51) ARE 6800 UUF AND .018 UF RESPECTIVELY AND C295 IS ADDED.
10. ON ORDER NO. 16811-PHILA-51 (TYPE 3) AND ON ORDER NO. 32146-PHILA-51 (SERIAL NUMBERS 83 AND ABOVE) R178 IS 1500 OHMS.
11. C294 USED ON ORDER NO. 16811-PHILA-51 BASE-BAND AMPLIFIER AND ORDER WIRE ASSEMBLIES (TYPE 4) AND ON ORDER NO. 32146-PHILA-51 (SERIAL NUMBERS 2 AND ABOVE).
12. ON ORDER NO. 16811-PHILA-51 (SERIAL NUMBERS 1 THROUGH 41) R299 IS 47K AND R287 IS 1 MEG
13. ON ORDER NO. 16811-PHILA-51 (SERIAL NUMBERS 1 THROUGH 339) C211 AND C212 ARE 100 UUF
14. TERMINAL 4 OF CONNECTOR J108 CONNECTED DIRECTLY TO TERMINAL 7 OF CONNECTOR J134 ON ORDER NO. 16811-PHILA-51 (SERIAL NUMBERS 19 AND ABOVE), AND ORDER NO. 32146-PHILA-51.
15. ON ORDER NO. 16811-PHILA-51 (SERIAL NUMBERS 19 AND ABOVE) AND ORDER NO. 32146-PHILA-51 TERMINALS 0, 3, 6, 9, 11, 12, 14, 15, 16, 17, 18, AND 20 OF CONNECTOR P107 ARE CONNECTED TO GROUND
16. CALIBRATOR SHOWN IS ONLY FOR SERIAL NUMBERS 1 THROUGH 47 ON ORDER NO. 16811-PHILA-51. FOR OTHERS SEE FIGURE 277.
17. [ ] INDICATES EQUIPMENT MARKING.

chematic diagram.



S109 SW POS AS SHOWN ON SCHEMATIC DIAGRAM		SWITCH PANEL MARKING	SWITCH CONTACTS MADE FRONT AND REAR SECTIONS
1	A	ODD CHANNELS	2-5
	B		9-10
2	A	EVEN CHANNELS	3-4
	B		10-11

Figure 281. Transmitter upper-chassis frame and front panel, wiring diagram.



UPPER CHASSIS OF TRANSMITTER VIEWED FROM REAR

AREA NUMBERS	VIEW
1-4	1
5-13	2

NOTES

1. WIRING NOT OTHERWISE SPECIFIED IS 22 GAUGE WIRE WITH EXTRUDED NYLON JACKET.
2. THIS WIRING IS 16 GAUGE WIRE WITH EXTRUDED NYLON JACKET.
3. THIS WIRING IS 22 GAUGE SHIELDED WIRE WITH EXTRUDED NYLON JACKET.
4. ═══ DENOTES 20 GAUGE BARE TINNED ANNEALED COPPER WIRING.
5. BARE STRAP WIRING IS RUN AS SHORT AND AS DIRECT AS POSSIBLE.
6. ⬭ DENOTES IMPREGNATED FIBRE GLASS SLEEVING.
7. WIRING NOT OTHERWISE SPECIFIED IS RUN IN CABLE FORM.
8. THIS WIRING IS RUN LOOSE AND DRESSED BACK AGAINST THE CHASSIS IN THE MOST CONVENIENT MANNER.
9. P DENOTES PAIRED LEADS

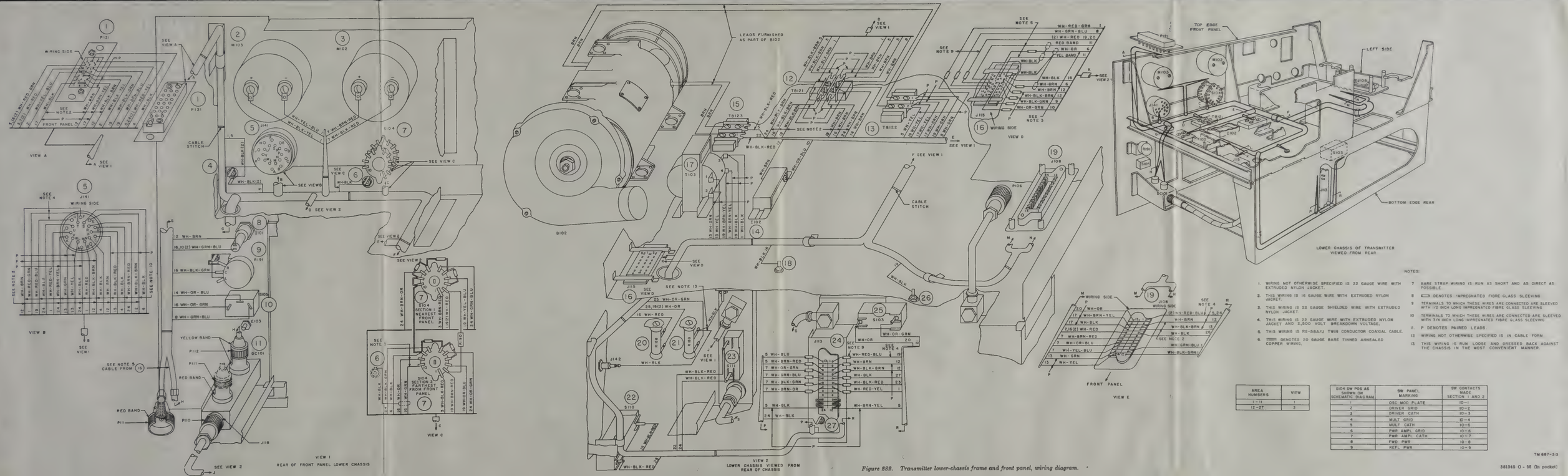


Figure 228. Transmitter lower-chassis frame and front panel, wiring diagram.

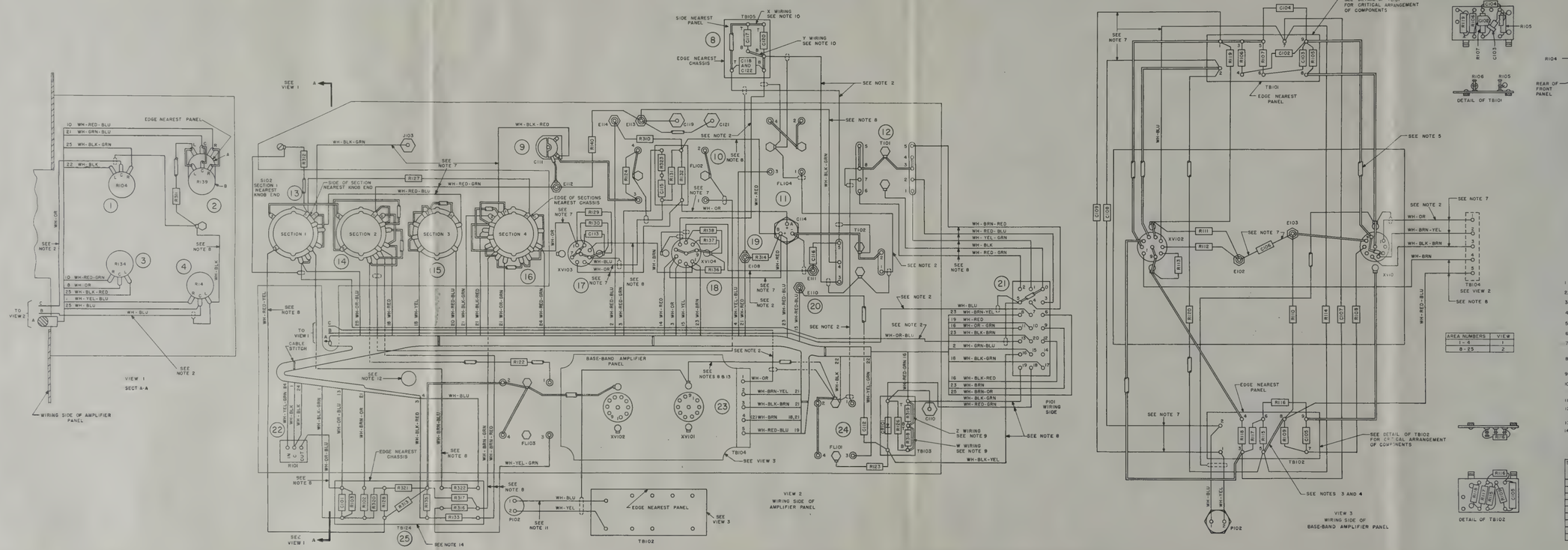
AREA NUMBERS	VIEW
1 - 11	1
12 - 27	2

S104 SW POS AS SHOWN ON SCHEMATIC DIAGRAM	SW PANEL MARKING	SW CONTACTS MADE SECTION 1 AND 2
1	OSC MOD PLATE	10-1
2	DRIVER GRID	10-2
3	DRIVER CATH	10-3
4	MULT GRID	10-4
5	MULT CATH	10-5
6	PWR AMPL GRID	10-6
7	PWR AMPL CATH	10-7
8	FWD PWR	10-8
9	REFL PWR	10-9

NOTES:

1. WIRING NOT OTHERWISE SPECIFIED IS 22 GAUGE WIRE WITH EXTRUDED NYLON JACKET.
2. THIS WIRING IS 16 GAUGE WIRE WITH EXTRUDED NYLON JACKET.
3. THIS WIRING IS 22 GAUGE SHIELDED WIRE WITH EXTRUDED NYLON JACKET.
4. THIS WIRING IS 22 GAUGE WIRE WITH EXTRUDED NYLON JACKET AND 7,500 VOLT BREAKDOWN VOLTAGE.
5. THIS WIRING IS RG-58A/U TWIN CONDUCTOR COAXIAL CABLE.
6. ═══ DENOTES 20 GAUGE BARE TINNED ANNEALED COPPER WIRING.
7. BARE STRAP WIRING IS RUN AS SHORT AND AS DIRECT AS POSSIBLE.
8. ▭ DENOTES IMPREGNATED FIBRE GLASS SLEEVING
9. TERMINALS TO WHICH THESE WIRES ARE CONNECTED ARE SLEEVED WITH 1/2 INCH LONG IMPREGNATED FIBRE GLASS SLEEVING
10. TERMINALS TO WHICH THESE WIRES ARE CONNECTED ARE SLEEVED WITH 3/4 INCH LONG IMPREGNATED FIBRE GLASS SLEEVING
11. P DENOTES PAIRED LEADS.
12. WIRING NOT OTHERWISE SPECIFIED IS IN CABLE FORM.
13. THIS WIRING IS RUN LOOSE AND DRESSED BACK AGAINST THE CHASSIS IN THE MOST CONVENIENT MANNER.

TM 687-313



NOTES

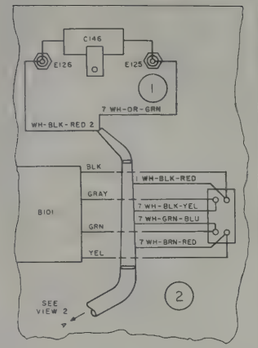
1. WIRING NOT OTHERWISE SPECIFIED IS 22 GAUGE WIRE WITH EXTRUDED NYLON JACKET
2. THIS WIRING IS 22 GAUGE SHIELDED WIRE.
3. — DENOTES 20 GAUGE BARE TINNED ANNEALED COPPER WIRING
4. BARE STRAP WIRING IS RUN AS SHORT AND AS DIRECT AS POSSIBLE.
5. ▭ DENOTES IMPREGNATED FIBRE GLASS SLEEVING
6. WIRING NOT OTHERWISE SPECIFIED IS RUN IN CABLE FORM.
7. THIS WIRING IS CONNECTED DIRECTLY FROM TERMINAL TO TERMINAL IN THE SHORTEST POSSIBLE MANNER.
8. THIS WIRING IS RUN LOOSE AND DRESSED BACK AGAINST THE CHASSIS IN THE MOST CONVENIENT MANNER.
9. W AND/OR Z WIRING IS PROVIDED TO OBTAIN PROPER METER CALIBRATIONS
10. Y AND/OR X WIRING IS PROVIDED TO OBTAIN PROPER TUNING OF 1-KC OSCILLATOR.
11. THIS WIRE IS IN RF CABLE ASSEMBLY.
12. ALL COMPONENTS, PLUS LEADS HAVE BEEN KEPT APPROXIMATELY 1/8 INCH AWAY FROM EDGE OF CABLE GROMMET HOLE.
13. SOME UNITS ARE FURNISHED WITH A WH-BLK LEAD.
14. IN SOME UNITS THIS STRIP IS DESIGNATED AS TB123.

SIDE SW POS AS SHOWN ON SCHEM DIAGRAM	SW PANEL MARKING	SW CONTACTS MADE							
		SECT 1		SECT 2		SECT 3		SECT 4	
		F	R	F	R	F	R	F	R
1	RF CHAN TUNE	—	—	—	—	—	—	2-3	—
2	1KC ADJ	—	8-10	—	8-10	—	8-10	2-4	—
3	MTR CAL	—	8-11	—	8-11	—	8-11	2-5	6-11
4	DISCR BP DRIVE	—	—	—	—	—	—	2-6	—
5	1KC IN	2-7	—	2-7	—	—	8-11	2-7	8-11
6	68KC IN	2-8	—	2-8	—	—	8-12	2-8	8-12
7	MOD 1KC IN	2-9	—	2-9	—	—	8-13	2-9	8-13
8	MOD 68KC IN	2-10	—	2-10	—	—	8-14	2-10	8-14
9	MOD ADJ	2-11	8-15	2-11	8-15	—	8-15	2-11	8-15

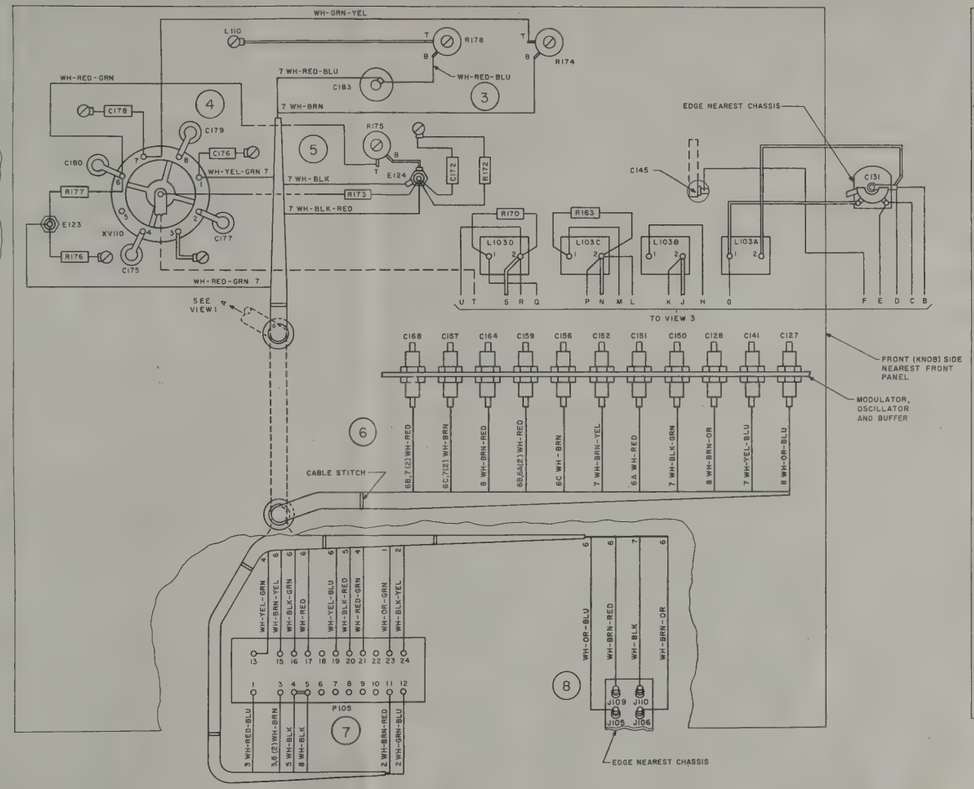
TM 687-314

381345 O - 56 (In pocket)

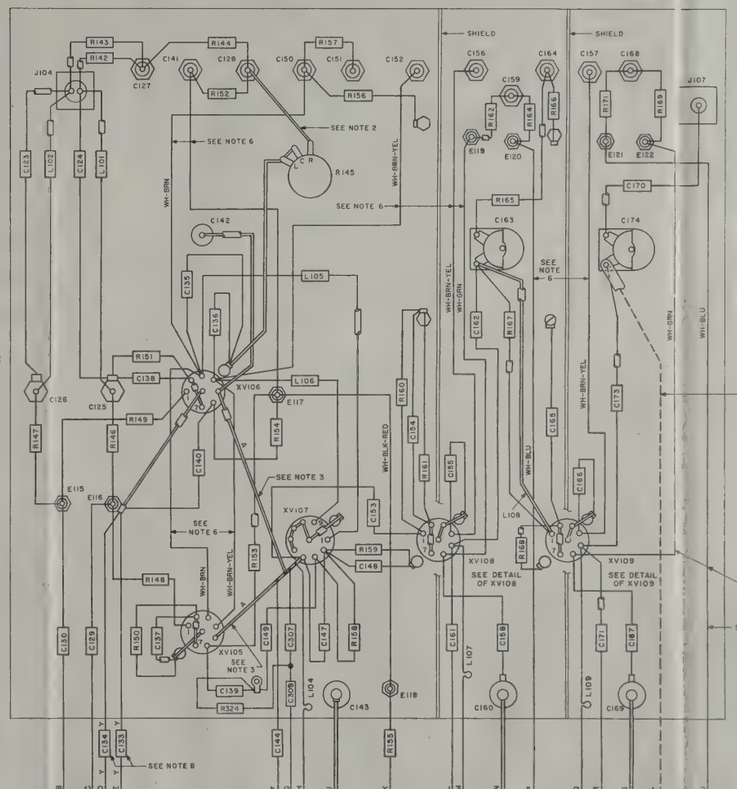
Figure 283. Transmitter base-band amplifier and metering circuit plug-in assembly, wiring diagram.



VIEW 1
BOTTOM SIDE OF EXCITER UNIT CHASSIS

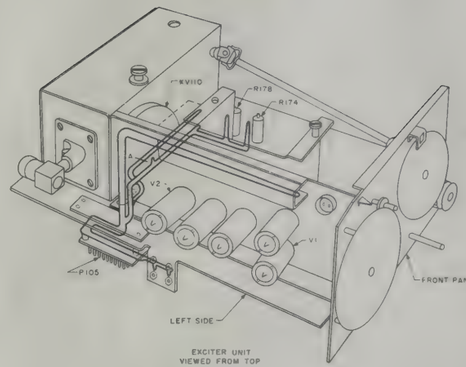


VIEW 2
UPPER SIDE OF EXCITER UNIT CHASSIS

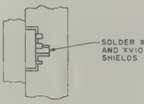


TO VIEW 2

VIEW 3
MODULATOR, OSCILLATOR AND BUFFER, WIRING SIDE



EXCITER UNIT
VIEWED FROM TOP



DETAIL OF
XV108 AND XV109

AREA NUMBERS	VIEW
1 - 2	1
3 - 8	2

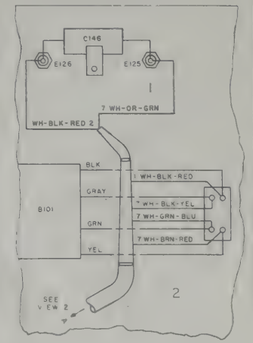
NOTES

1. WIRING NOT OTHERWISE SPECIFIED IS 22 GAUGE WIRE WITH EXTRUDED NYLON JACKET
2. ═══ DENOTES 20 GAUGE BARE TINNED ANNEALED COPPER WIRING
3. A ═══ DENOTES 18 GAUGE BARE TINNED ANNEALED COPPER WIRING
4. BARE STRAP WIRING IS RUN AS SHORT AND DIRECT AS POSSIBLE
5. WIRING NOT OTHERWISE SPECIFIED IS CONNECTED DIRECTLY FROM TERMINAL TO TERMINAL IN THE SHORTEST POSSIBLE MANNER
6. THIS WIRING IS RUN LOOSE AND DRESSED BACK AGAINST THE CHASSIS IN THE MOST CONVENIENT MANNER
7. ▭ DENOTES IMPREGNATED FIBRE GLASS SLEEVING
8. Y DENOTES LEADS OF COMPONENTS WHICH ARE WIRED SO AS TO PROVIDE NOT MORE THAN 1/4 INCH OR LESS THAN 1/8 INCH OF WIRE BETWEEN COMPONENT AND TERMINAL WIRED THERETO
9. T DENOTES TOP TERMINAL, B DENOTES BOTTOM (NEAREST MOUNTING SURFACE) TERMINAL
10. THIS IS A TINNED COPPER STRAP CONNECTOR .010 INCH THICK BY 3/8 INCH WIDE BY 1 3/8 INCH LONG
11. THIS WIRING IS 22 GAUGE WIRE WITH AN EXTRUDED NYLON JACKET AND INSULATION WHICH HAS A MAXIMUM RATED WORKING VOLTAGE OF 600 VOLTS AC RMS AND 1000 VOLTS DC

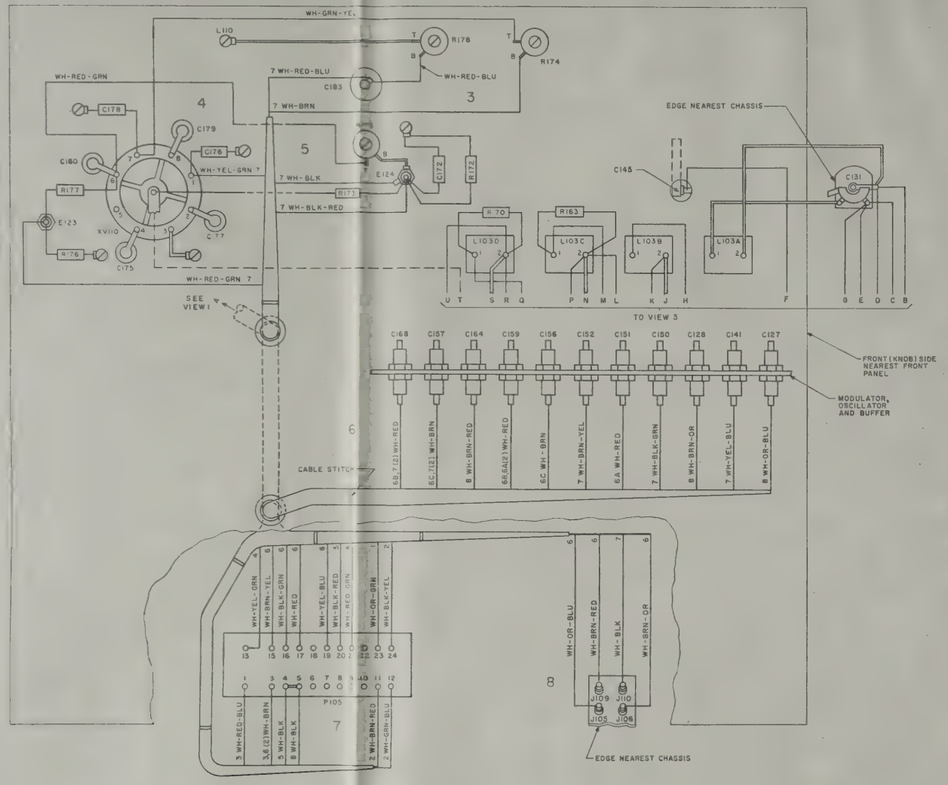
TM 687-315

381345 O - 56 (In pocket)

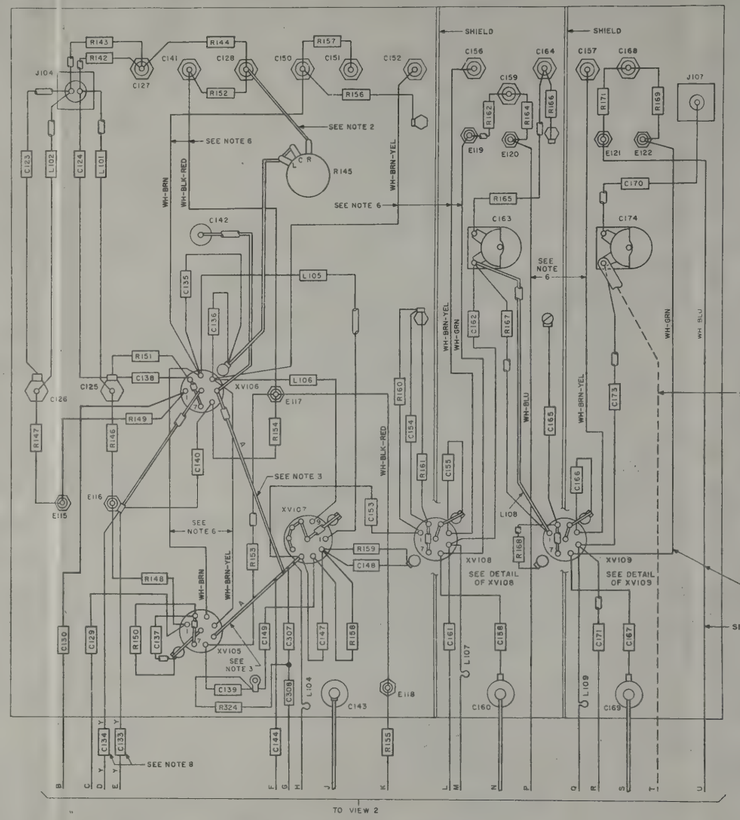
Figure 284. Rf exciter plug-in assembly, wiring diagram for type 1 procured on Order No. 16811–Phila–51.



VIEW 1
BOTTOM SIDE OF EXCITER UNIT CHASSIS

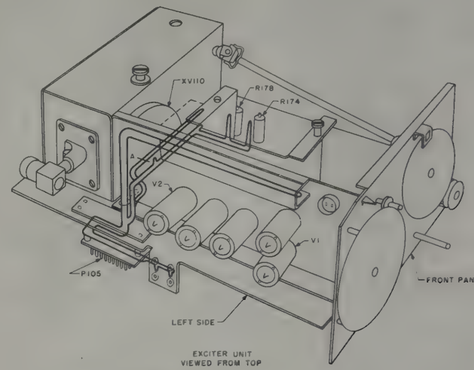


VIEW 2
PER SIDE OF EXCITER UNIT CHASSIS

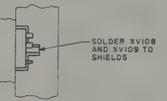


VIEW 3
MODULATOR, OSCILLATOR AND BUFFER, WIRING SIDE

AREA NUMBERS	VIEW
1 - 2	1
3 - 8	2



EXCITER UNIT
VIEWED FROM TOP



DETAIL OF
XV108 AND XV109

NOTES:

1. WIRING NOT OTHERWISE SPECIFIED IS 22 GAUGE WIRE WITH EXTRUDED NYLON JACKET.
2. ═══ DENOTES 20 GAUGE BARE TINNED ANNEALED COPPER WIRING.
3. A ═══ DENOTES 18 GAUGE BARE TINNED ANNEALED COPPER WIRING.
4. BARE STRAP WIRING IS RUN AS SHORT AND DIRECT AS POSSIBLE.
5. WIRING NOT OTHERWISE SPECIFIED IS CONNECTED DIRECTLY FROM TERMINAL TO TERMINAL IN THE SHORTEST POSSIBLE MANNER.
6. THIS WIRING IS RUN LOOSE AND DRESSED BACK AGAINST THE CHASSIS IN THE MOST CONVENIENT MANNER.
7. ▭ DENOTES IMPREGNATED FIBRE GLASS SLEEVING.
8. Y DENOTES LEADS OF COMPONENTS WHICH ARE WIRED SO AS TO PROVIDE NOT MORE THAN 1/8 INCH OR LESS THAN 1/16 INCH OF WIRE BETWEEN COMPONENT AND TERMINAL WIRED THERETO
9. T DENOTES TOP TERMINAL, B DENOTES BOTTOM (NEAREST MOUNTING SURFACE) TERMINAL.
10. THIS IS A TINNED COPPER STRAP CONNECTOR .010 INCH THICK BY 3/8 INCH WIDE BY 1-3/8 INCH LONG
11. THIS WIRING IS 22 GAUGE WIRE WITH AN EXTRUDED NYLON JACKET AND INSULATION WHICH HAS A MAXIMUM RATED WORKING VOLTAGE OF 600 VOLTS AC RMS AND 1000 VOLTS DC.

TM687-359

381345 O - 56 (in pocket)

Figure 285. Rf exciter plug-in assembly, wiring diagram for types 2 and 3 procured on Order No. 18811–Phila–51 and serial numbers 1 and above on Order No. 32146–Phila–51.

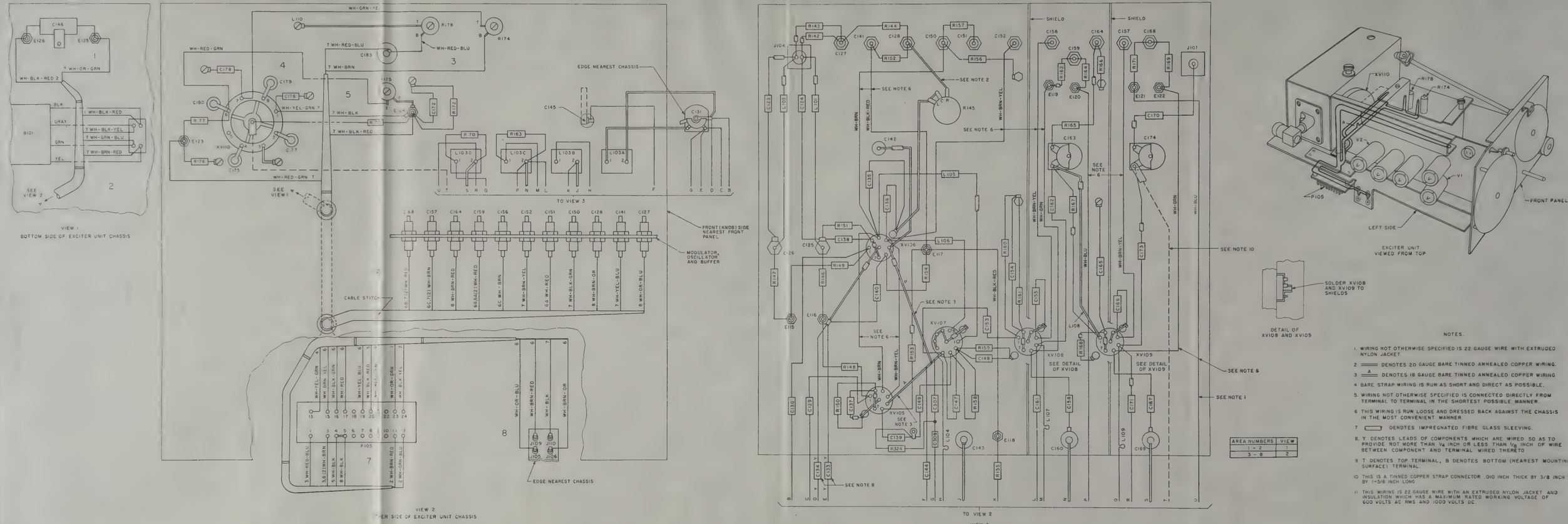


Figure 285. Rf exciter plug-in assembly, wiring diagram for types 2 and 3 procured on Order No. 16811-Phila-51 and serial numbers 1 and above on Order No. 32146-Phila-51.

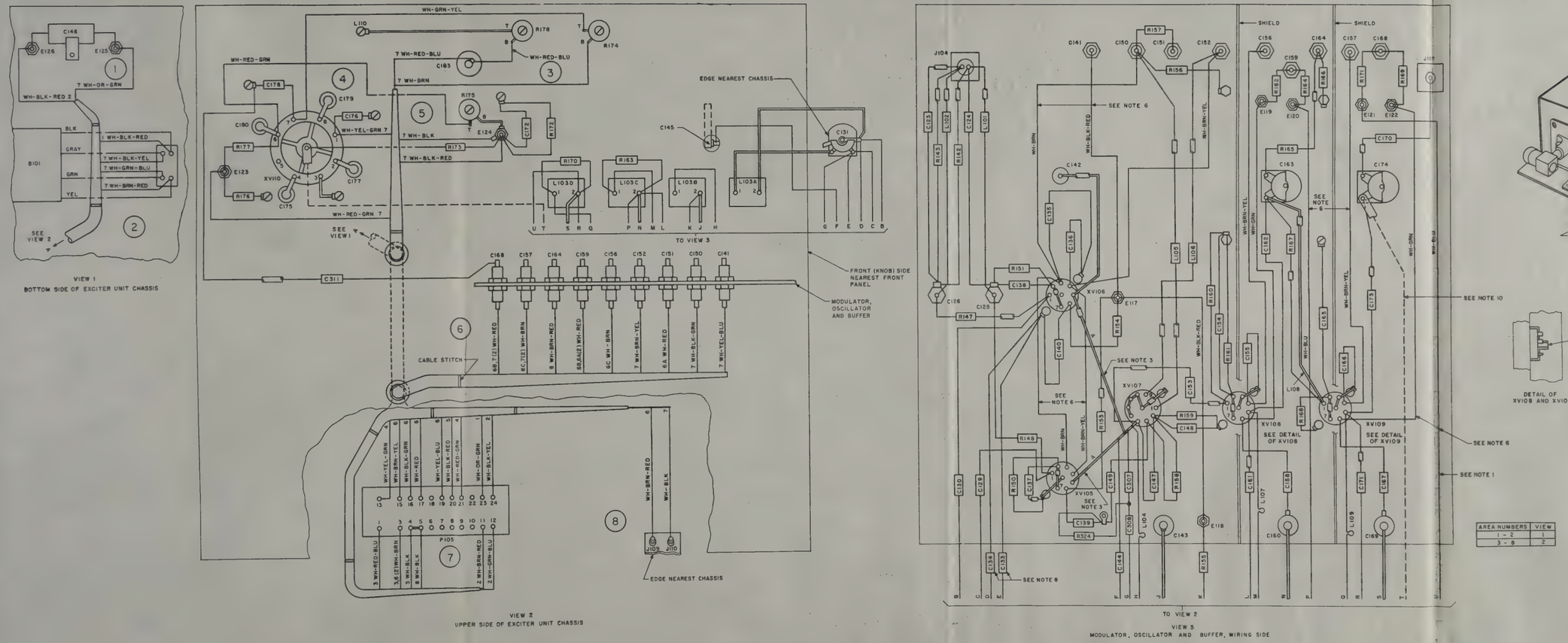


Figure 286. Rf exciter plug-in assembly, wiring diagram for types 4 and 5 procured on Order No. 16811–Phila–51.

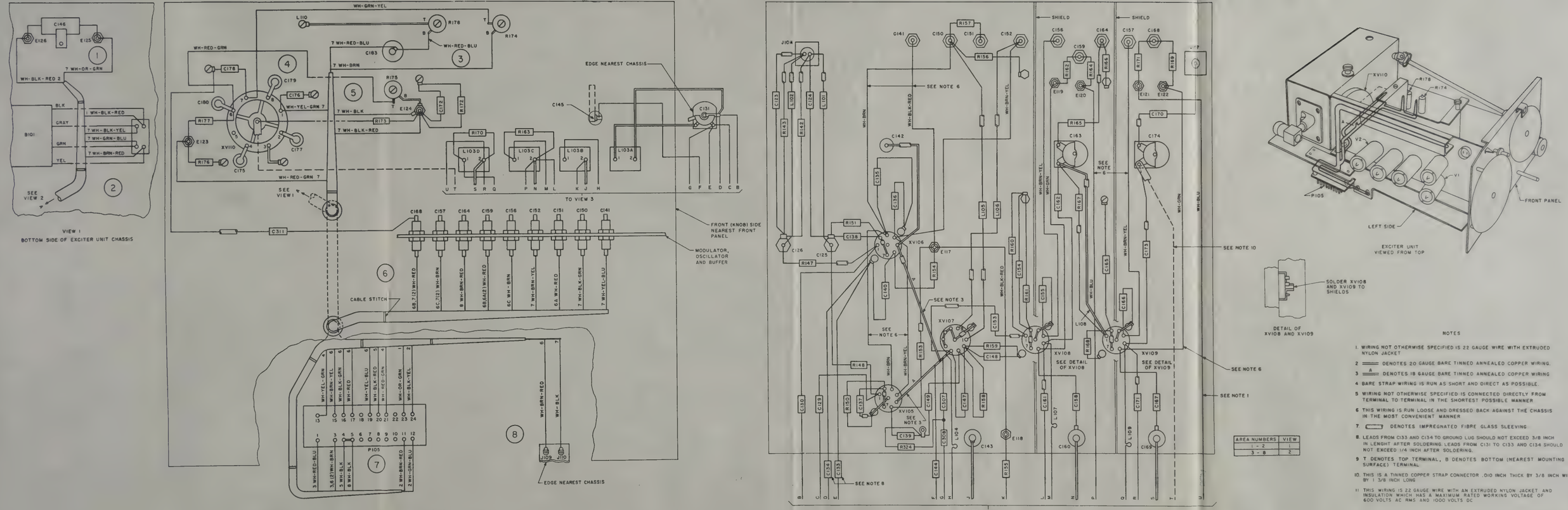
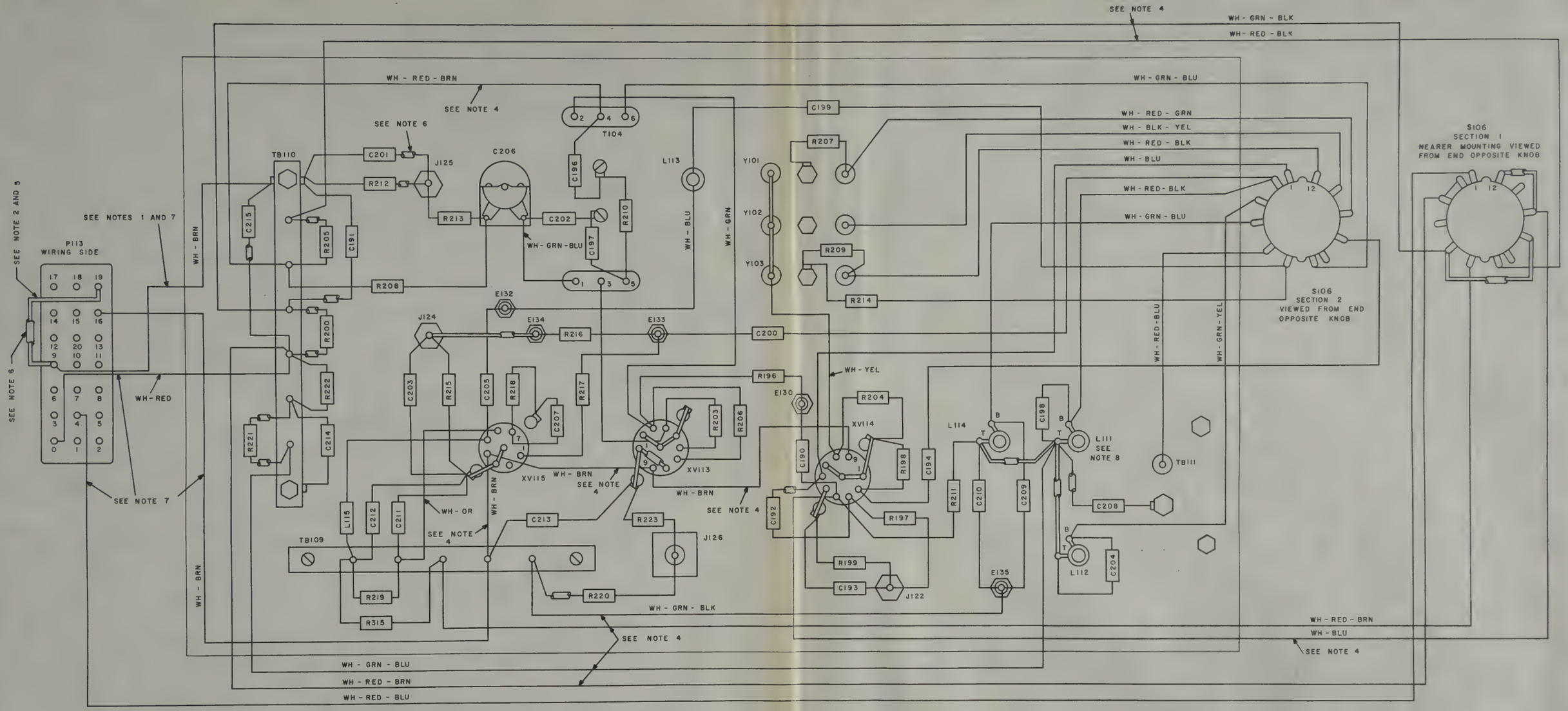


Figure 286. Rf exciter plug-in assembly, wiring diagram for types 4 and 5 procured on Order No. 16811–Phila–51.



CHASSIS, WIRING SIDE

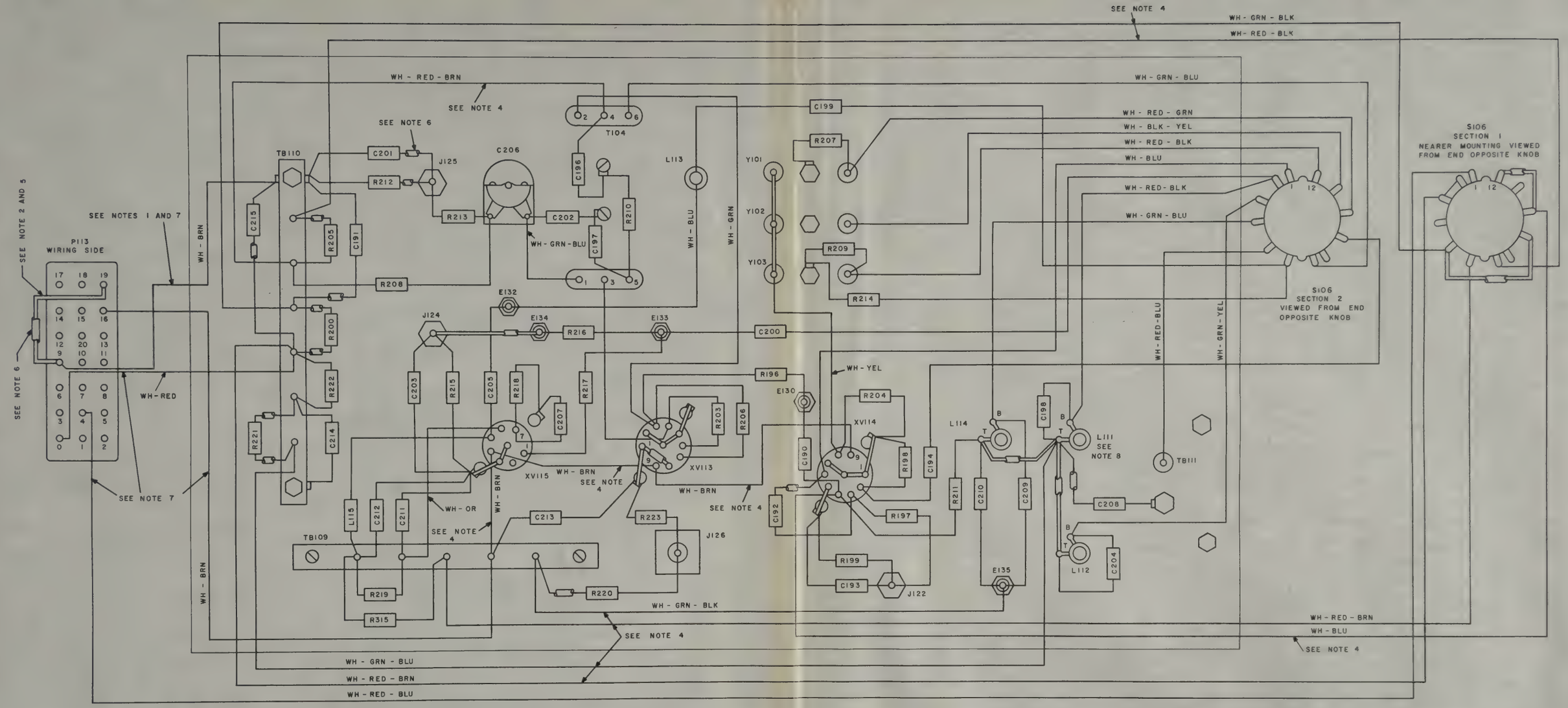
S106 SW POS AS SHOWN ON SCHEMATIC DIAGRAM		SWITCH PANEL MARKING	SWITCH CONTACTS MADE	
			SECTION 1	SECTION 2
1	A	DECADE CHANS	1 - 2	1 - 2
	B		5 - 6	5 - 6
	C		9 - 10	9 - 10
2	A	UNIT CHANS	1 - 3	1 - 3
	B		5 - 7	5 - 7
	C		9 - 11	9 - 11
3	A	DISCR CENTER	1 - 4	1 - 4
	B		5 - 8	5 - 8
	C		9 - 12	9 - 12

NOTES:

1. WIRING NOT OTHERWISE SPECIFIED IS 22 GAUGE WIRE WITH EXTRUDED NYLON JACKET.
2. ═══ DENOTES 20 GAUGE BARE TINNED ANNEALED COPPER WIRING.
3. WIRING NOT OTHERWISE SPECIFIED IS CONNECTED DIRECTLY FROM TERMINAL TO TERMINAL IN THE SHORTEST POSSIBLE MANNER.
4. THIS WIRING IS RUN LOOSE AND DRESSED BACK AGAINST THE CHASSIS IN THE MOST CONVENIENT MANNER.
5. BARE STRAP WIRING IS RUN AS SHORT AND AS DIRECT AS POSSIBLE.
6. ▭ DENOTES IMPREGNATED FIBRE GLASS SLEEVING.
7. THIS WIRING IS FORMED INTO A CABLE AND IS SO TIED THAT LEADS ARE KEPT AWAY FROM THE TERMINAL STRIP. SUFFICIENT SLACK IS ALLOWED FOR REMOVAL OF CONNECTOR P113.
8. T DENOTES TOP TERMINAL, B DENOTES BOTTOM (NEAREST MOUNTING SURFACE) TERMINAL.

TM 687-316

Figure 287. Crystal oscillator and pulse generator plug-in assembly, wiring diagram.



CHASSIS, WIRING SIDE

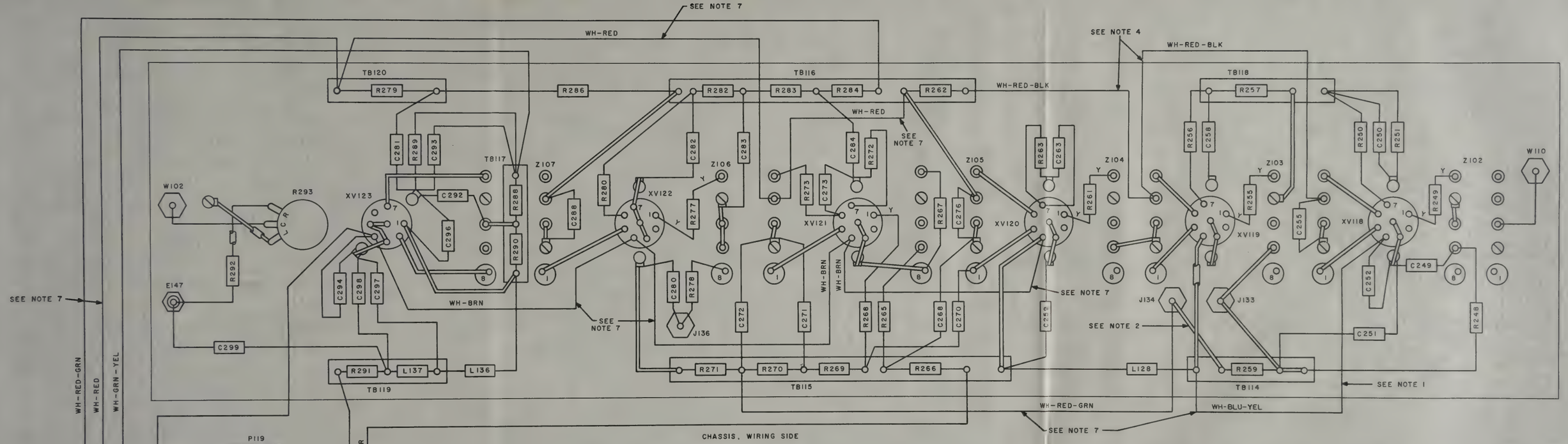
S106 SW POS AS SHOWN ON SCHEMATIC DIAGRAM		SWITCH PANEL MARKING	SWITCH CONTACTS MADE	
			SECTION 1	SECTION 2
1	A	DECADE CHANS	1 - 2	1 - 2
	B		5 - 6	5 - 6
	C		9 - 10	9 - 10
2	A	UNIT CHANS	1 - 3	1 - 3
	B		5 - 7	5 - 7
	C		9 - 11	9 - 11
3	A	DISCR CENTER	1 - 4	1 - 4
	B		5 - 8	5 - 8
	C		9 - 12	9 - 12

NOTES:

1. WIRING NOT OTHERWISE SPECIFIED IS 22 GAUGE WIRE WITH EXTRUDED NYLON JACKET.
2. ═══ DENOTES 20 GAUGE BARE TINNED ANNEALED COPPER WIRING.
3. WIRING NOT OTHERWISE SPECIFIED IS CONNECTED DIRECTLY FROM TERMINAL TO TERMINAL IN THE SHORTEST POSSIBLE MANNER.
4. THIS WIRING IS RUN LOOSE AND DRESSED BACK AGAINST THE CHASSIS IN THE MOST CONVENIENT MANNER.
5. BARE STRAP WIRING IS RUN AS SHORT AND AS DIRECT AS POSSIBLE.
6. ⬭ DENOTES IMPREGNATED FIBRE GLASS SLEEVING.
7. THIS WIRING IS FORMED INTO A CABLE AND IS SO TIED THAT LEADS ARE KEPT AWAY FROM THE TERMINAL STRIP. SUFFICIENT SLACK IS ALLOWED FOR REMOVAL OF CONNECTOR P113.
8. T DENOTES TOP TERMINAL, B DENOTES BOTTOM (NEAREST MOUNTING SURFACE) TERMINAL.

Figure 287. Crystal oscillator and pulse generator plug-in assembly, wiring diagram.

TM 687-316



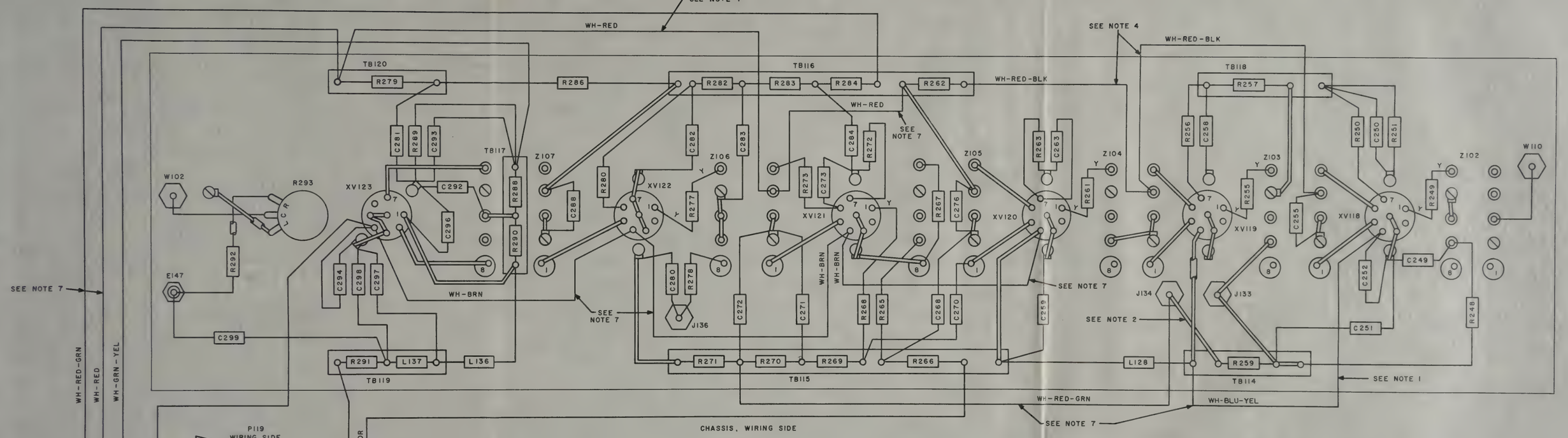
NOTES:

1. WIRING NOT OTHERWISE SPECIFIED IS 22 GAUGE WIRE WITH EXTRUDED NYLON JACKET.
2. ═══ DENOTES 22 GAUGE BARE TINNED ANNEALED COPPER WIRING.
3. WIRING NOT OTHERWISE SPECIFIED IS RUN LOOSE AND DRESSED BACK AGAINST THE CHASSIS IN THE MOST CONVENIENT MANNER.
4. THIS WIRING IS CONNECTED DIRECTLY FROM TERMINAL TO TERMINAL IN THE SHORTEST POSSIBLE MANNER.
5. THIS WIRING IS SO TIED TOGETHER THAT LEADS ARE KEPT AWAY FROM SOCKET XV123. SUFFICIENT SLACK IS PROVIDED TO ALLOW REMOVAL OF CONNECTOR P119.
6. BARE STRAP WIRING IS RUN AS SHORT AND AS DIRECT AS POSSIBLE.
7. THESE LEADS ARE PLACED UNDER TERMINAL BOARDS TB114 TO TB 116 INCL., TB119 AND TB120 AND TIED TO THEIR SUPPORTS.
8. ALL WIRING TO TERMINAL BOARDS TB114 TO TB116 INCL. AND TB118 TO TB120 INCL., EXCEPT COMPONENTS MOUNTED BY THEIR OWN LEADS, ARE BROUGHT UP TO TERMINALS ON SOCKET SIDE OF TERMINAL BOARDS.
9. UNLESS OTHERWISE SPECIFIED, COMPONENTS SUPPORTED BY THEIR OWN LEADS ARE WIRED AS FOLLOWS: A MINIMUM OF OF 1/4 INCH OF WIRE IS PROVIDED BETWEEN COMPONENTS AND TERMINALS WIRED THERETO. BENDS OF COMPONENT WIRES ARE NOT CLOSER THAN 1/8 INCH FROM THE BODY OF THESE COMPONENTS. IN ALL OTHER CASES WHERE THE DISTANCE BETWEEN THE TERMINALS TO WHICH THESE COMPONENTS ARE CONNECTED IS GREATER THAN THE LENGTH OF THE COMPONENT PLUS 1/2 INCH, THE WIRING IS AS SHORT AS PRACTICAL.
10. ▭ DENOTES IMPREGNATED FIBRE GLASS SLEEVING.
11. Y DENOTES LEADS OF COMPONENTS WHICH ARE WIRED SO AS TO PROVIDE NOT MORE THAN 1/4 INCH OR LESS THAN 1/8 INCH OF WIRE BETWEEN COMPONENTS AND TERMINAL WIRED THERETO.

Figure 289. Transmitter afc if. amplifier plug-in assembly, wiring diagram.

TM 687-318

381345 O - 56 (In pocket)



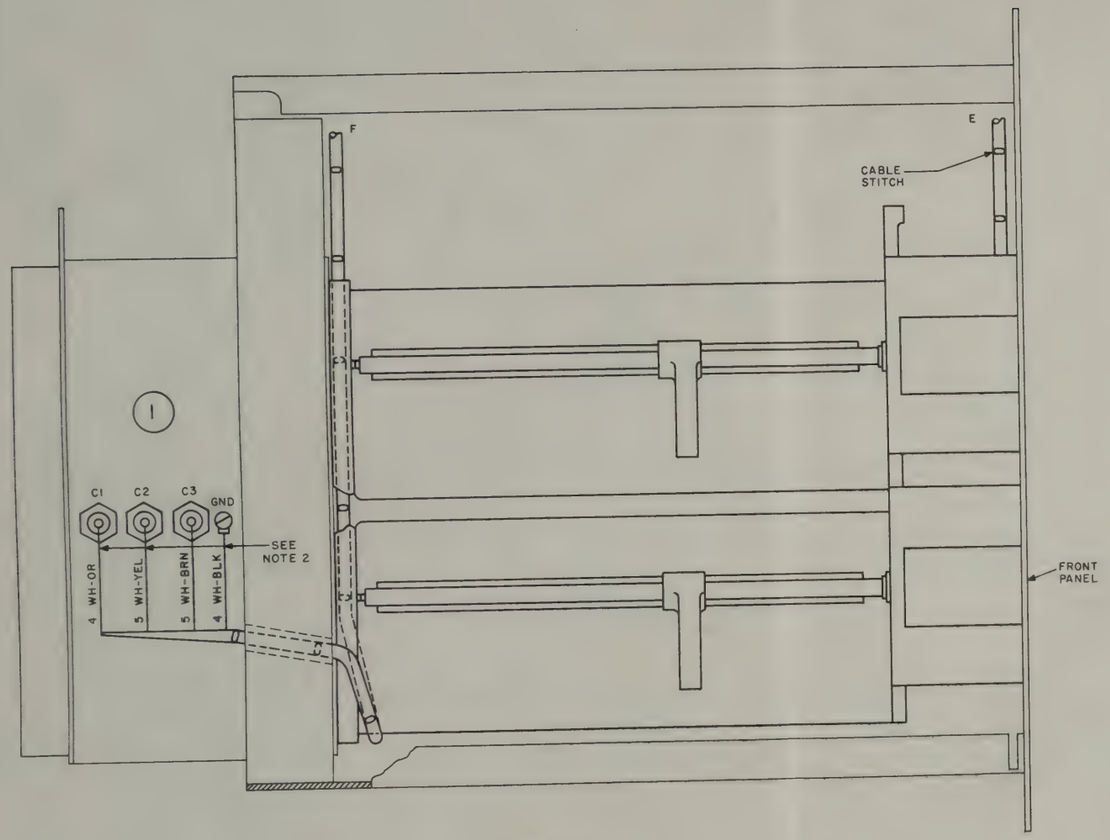
NOTES:

1. WIRING NOT OTHERWISE SPECIFIED IS 22 GAUGE WIRE WITH EXTRUDED NYLON JACKET.
2. —— DENOTES 22 GAUGE BARE TINNED ANNEALED COPPER WIRING.
3. WIRING NOT OTHERWISE SPECIFIED IS RUN LOOSE AND DRESSED BACK AGAINST THE CHASSIS IN THE MOST CONVENIENT MANNER.
4. THIS WIRING IS CONNECTED DIRECTLY FROM TERMINAL TO TERMINAL IN THE SHORTEST POSSIBLE MANNER.
5. THIS WIRING IS SO TIED TOGETHER THAT LEADS ARE KEPT AWAY FROM SOCKET XV123. SUFFICIENT SLACK IS PROVIDED TO ALLOW REMOVAL OF CONNECTOR P119.
6. BARE STRAP WIRING IS RUN AS SHORT AND AS DIRECT AS POSSIBLE.
7. THESE LEADS ARE PLACED UNDER TERMINAL BOARDS TB114 TO TB 116 INCL., TB119 AND TB120 AND TIED TO THEIR SUPPORTS.
8. ALL WIRING TO TERMINAL BOARDS TB114 TO TB116 INCL. AND TB118 TO TB120 INCL., EXCEPT COMPONENTS MOUNTED BY THEIR OWN LEADS, ARE BROUGHT UP TO TERMINALS ON SOCKET SIDE OF TERMINAL BOARDS.
9. UNLESS OTHERWISE SPECIFIED, COMPONENTS SUPPORTED BY THEIR OWN LEADS ARE WIRED AS FOLLOWS: A MINIMUM OF OF 1/4 INCH OF WIRE IS PROVIDED BETWEEN COMPONENTS AND TERMINALS WIRED THERETO. BENDS OF COMPONENT WIRES ARE NOT CLOSER THAN 1/8 INCH FROM THE BODY OF THESE COMPONENTS. IN ALL OTHER CASES WHERE THE DISTANCE BETWEEN THE TERMINALS TO WHICH THESE COMPONENTS ARE CONNECTED IS GREATER THAN THE LENGTH OF THE COMPONENT PLUS 1/2 INCH, THE WIRING IS AS SHORT AS PRACTICAL.
10. ▭ DENOTES IMPREGNATED FIBRE GLASS SLEEVING.
11. Y DENOTES LEADS OF COMPONENTS WHICH ARE WIRED SO AS TO PROVIDE NOT MORE THAN 1/4 INCH OR LESS THAN 1/8 INCH OF WIRE BETWEEN COMPONENTS AND TERMINAL WIRED THERETO.

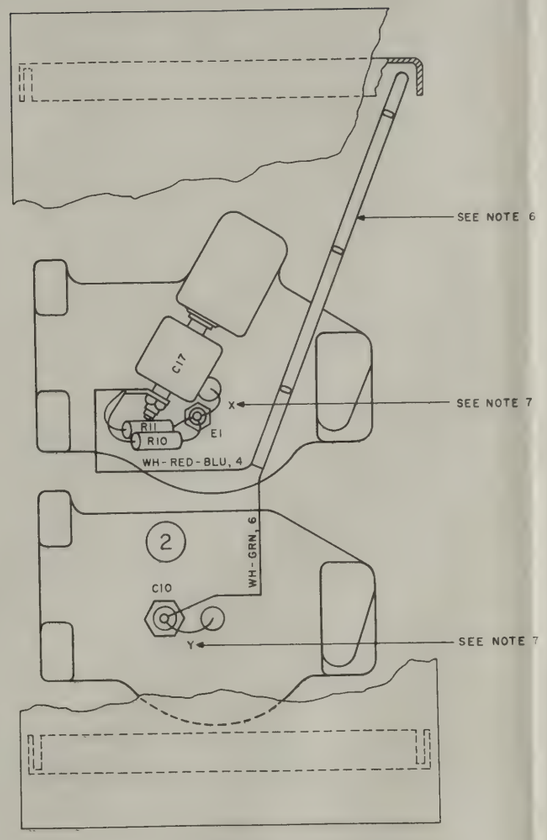
Figure 289. Transmitter afc if. amplifier plug-in assembly, wiring diagram.

TM 687-318

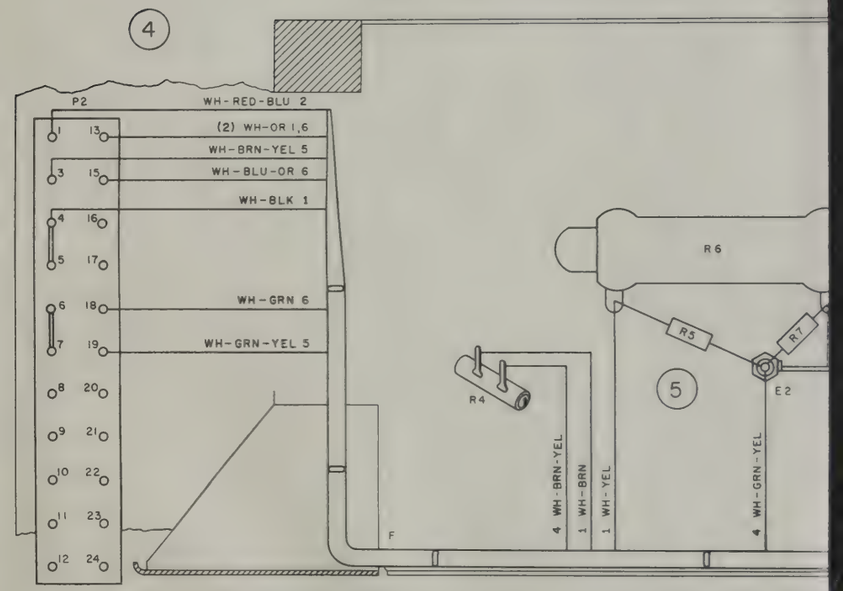
381345 O - 56 (In pocket)



VIEW 1
TOP VIEW
COVER REMOVED

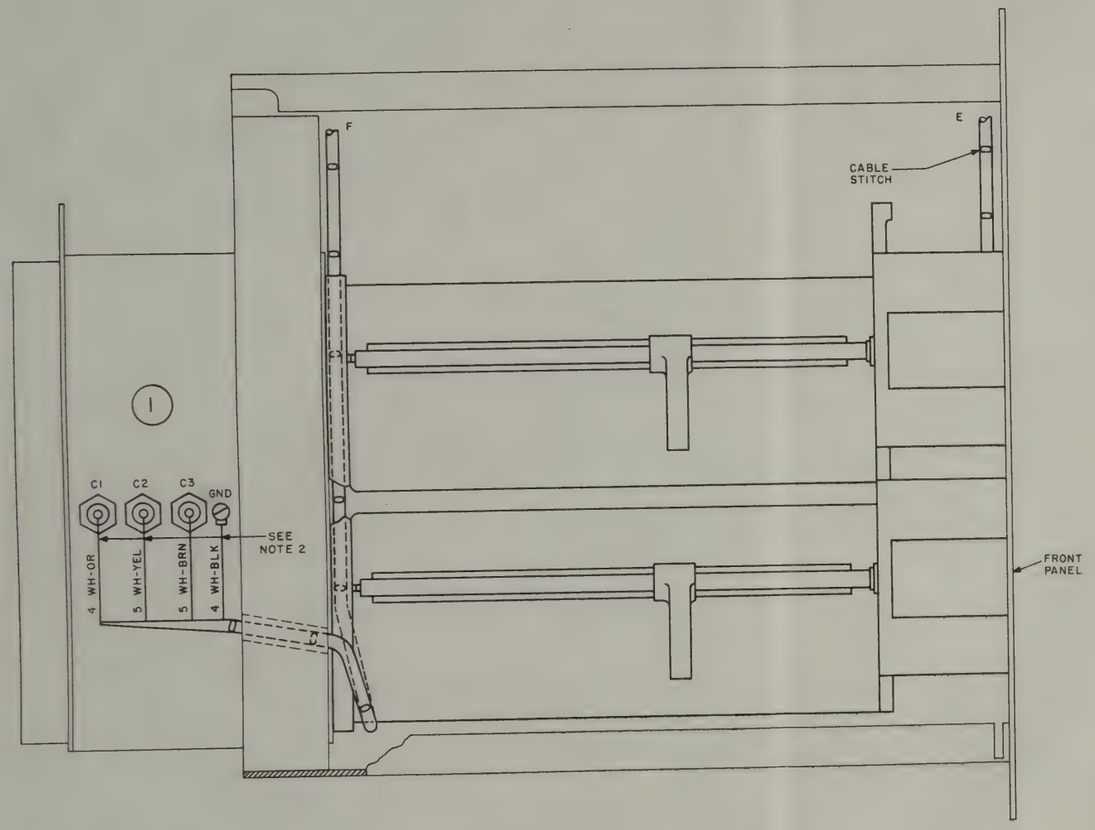


FRONT
WIRING OF CAVITIES
FRONT PANEL REMOVED

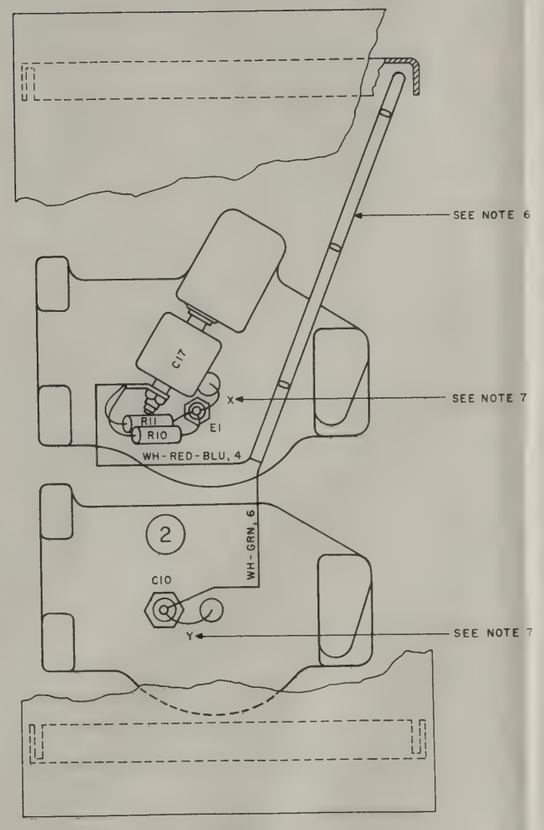


VIEW 2
RIGHT SIDE
VIEWED FROM INTERIOR

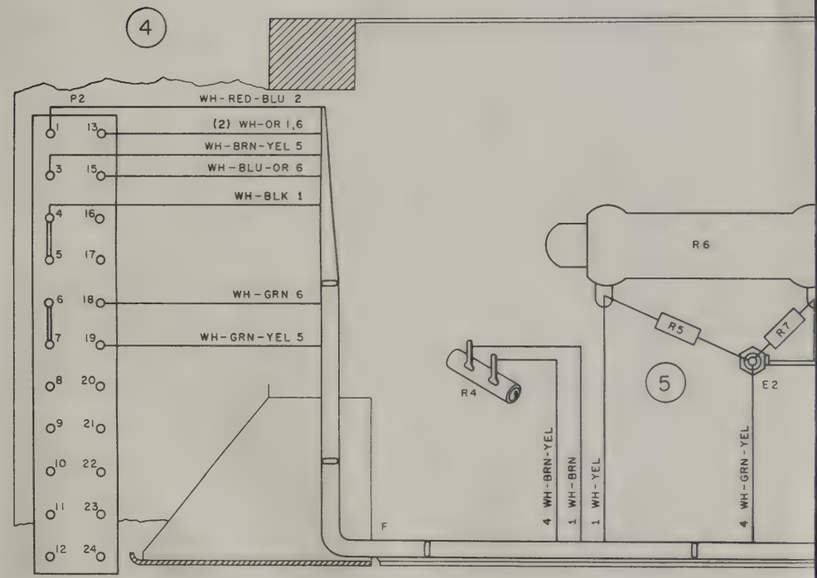
Figure 292. Radio Frequ



VIEW 1
TOP VIEW
COVER REMOVED

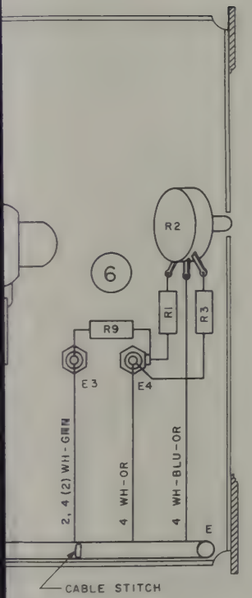


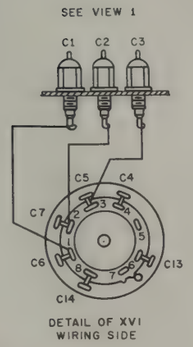
FRONT
WIRING OF CAVITIES
FRONT PANEL REMOVED

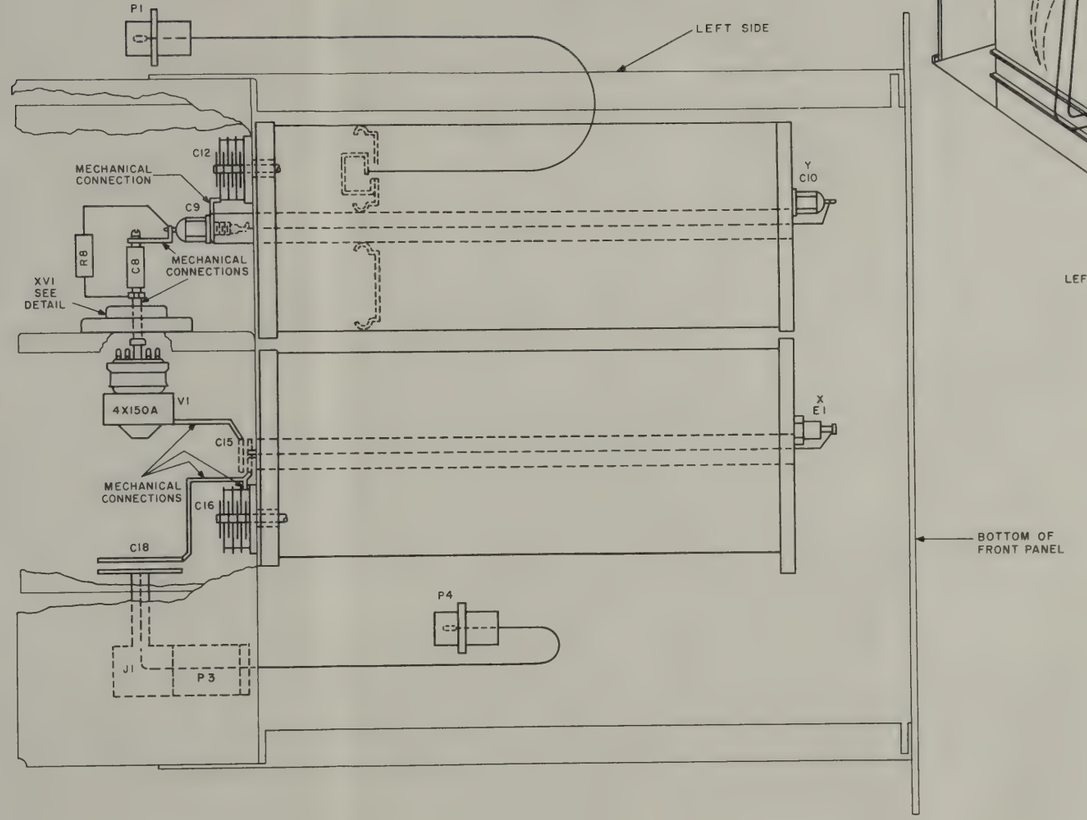


VIEW 2
RIGHT SIDE
VIEWED FROM INTERIOR

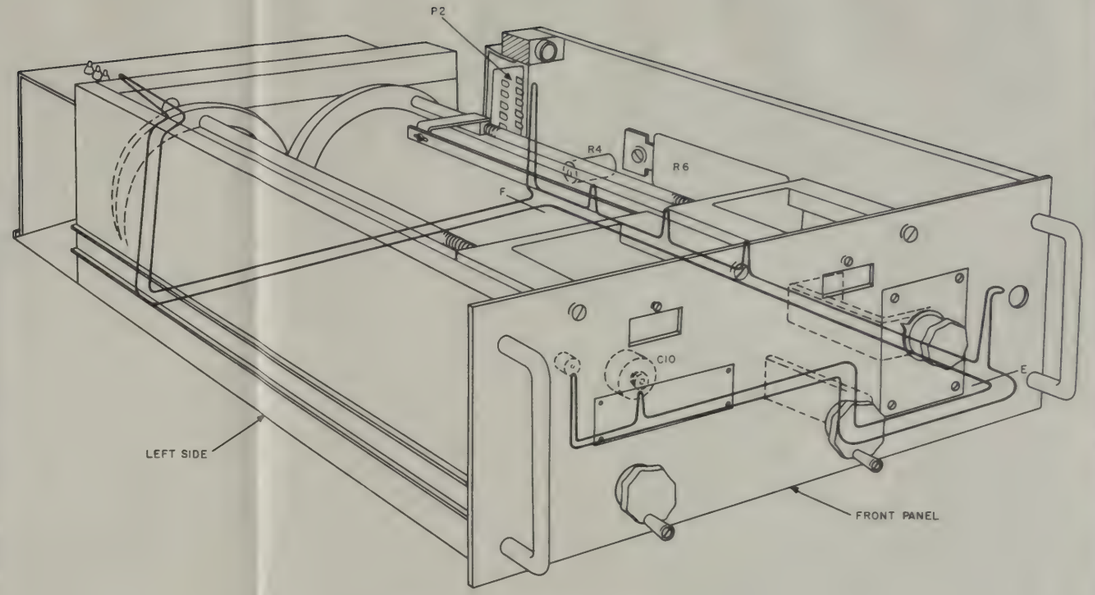
Figure 292. Radio Freque







VIEW 3
BOTTOM VIEW



AMPLIFIER, RADIO FREQUENCY AM-912/TRC

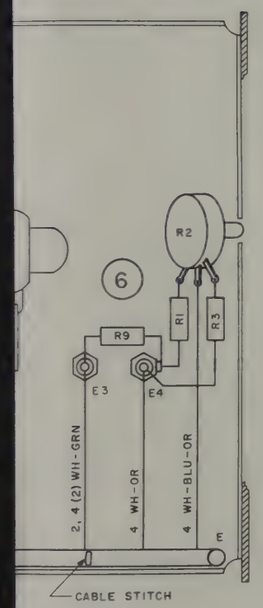
NOTES:

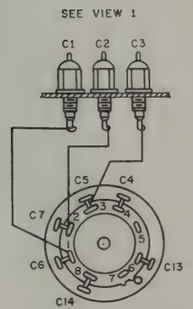
1. WIRING NOT OTHERWISE SPECIFIED IS 22 GAUGE WIRE WITH EXTRUDED NYLON JACKET.
2. THIS WIRING IS 16 GAUGE WIRE WITH EXTRUDED NYLON JACKET.
3. ═══ DENOTES 20 GAUGE BARE TINNED ANNEALED COPPER WIRING.
4. BARE STRAP WIRING IS RUN AS SHORT AND AS DIRECT AS POSSIBLE.
5. WIRING NOT OTHERWISE SPECIFIED IS CONNECTED DIRECTLY FROM TERMINAL TO TERMINAL IN THE SHORTEST POSSIBLE MANNER.
6. THIS IS PART OF THE CABLE ASSEMBLY.
7. FOR INTERNAL CONTINUITY CHECK, SEE VIEW 3

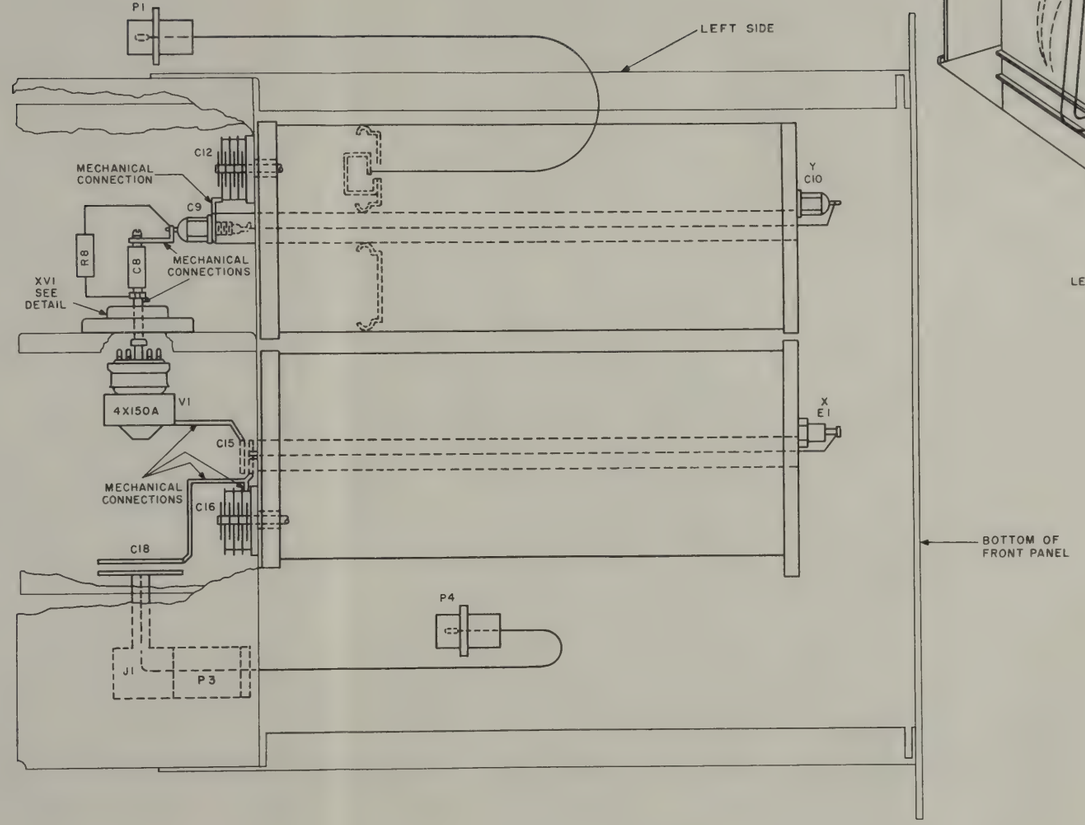
ncy Amplifier AM–912/TRC, wiring diagram,

TM687-321

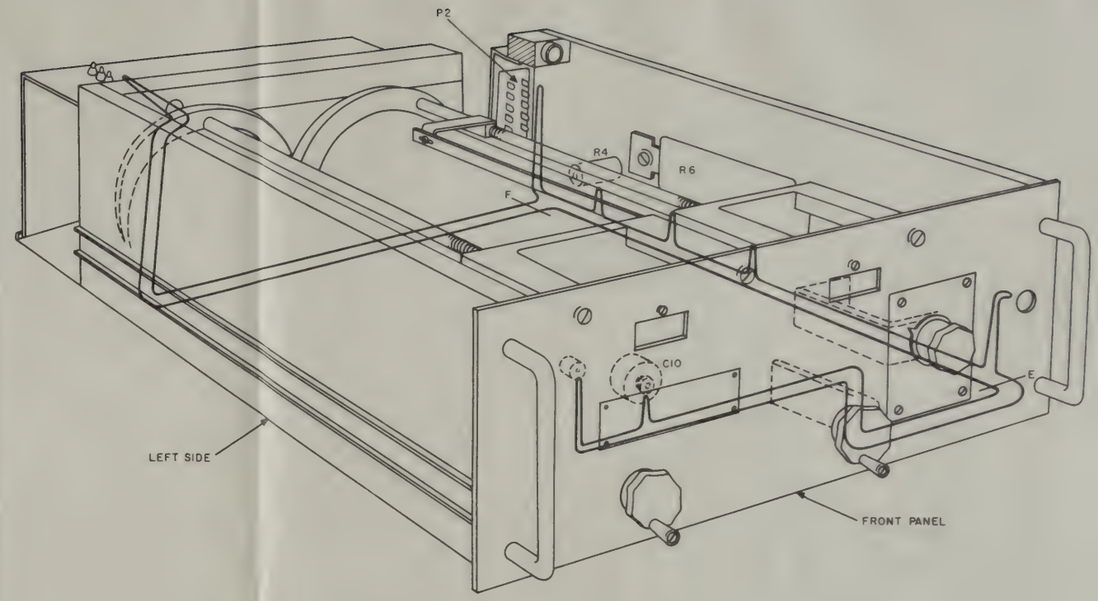
381345 O - 56 (in pocket)







VIEW 3
BOTTOM VIEW



AMPLIFIER, RADIO FREQUENCY AM-912/TRC

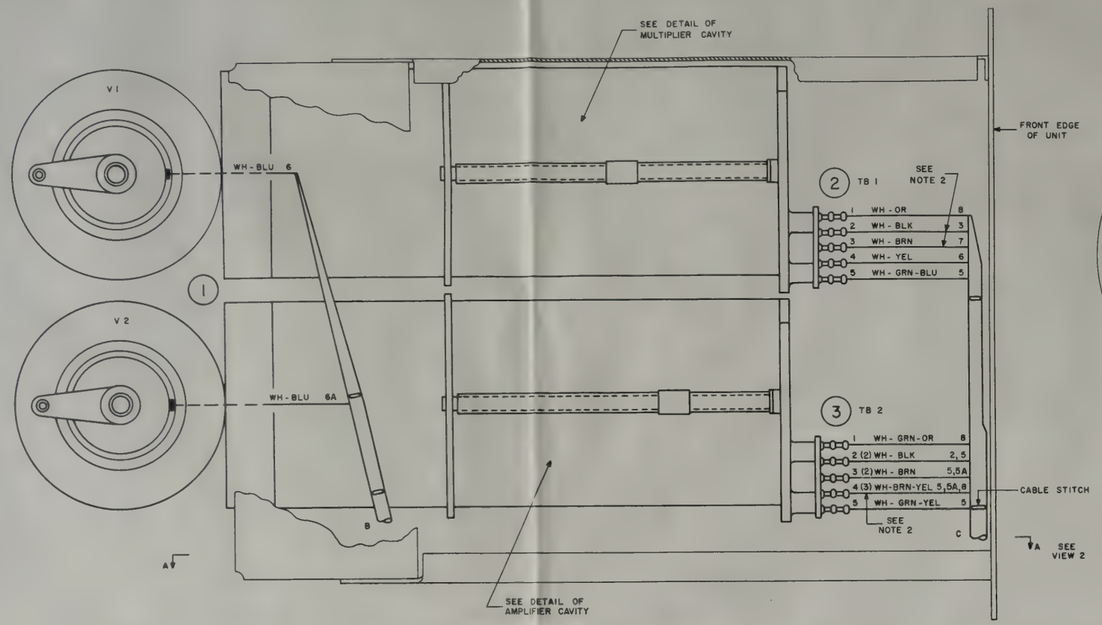
NOTES:

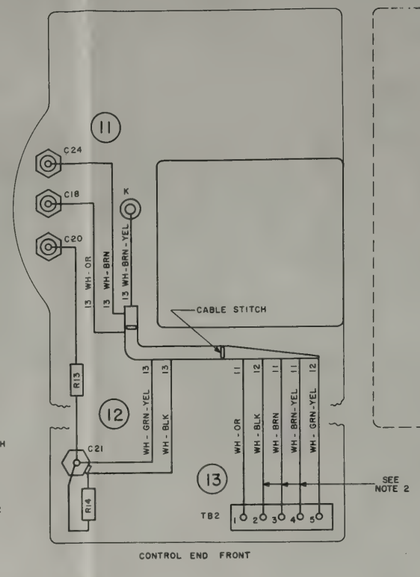
1. WIRING NOT OTHERWISE SPECIFIED IS 22 GAUGE WIRE WITH EXTRUDED NYLON JACKET.
2. THIS WIRING IS 16 GAUGE WIRE WITH EXTRUDED NYLON JACKET.
3. ═══ DENOTES 20 GAUGE BARE TINNED ANNEALED COPPER WIRING.
4. BARE STRAP WIRING IS RUN AS SHORT AND AS DIRECT AS POSSIBLE.
5. WIRING NOT OTHERWISE SPECIFIED IS CONNECTED DIRECTLY FROM TERMINAL TO TERMINAL IN THE SHORTEST POSSIBLE MANNER.
6. THIS IS PART OF THE CABLE ASSEMBLY.
7. FOR INTERNAL CONTINUITY CHECK, SEE VIEW 3

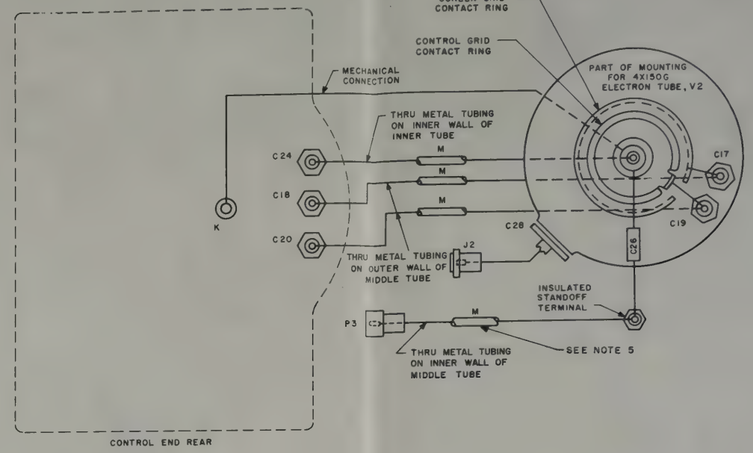
ncy Amplifier AM-912/TRC, wiring diagram,

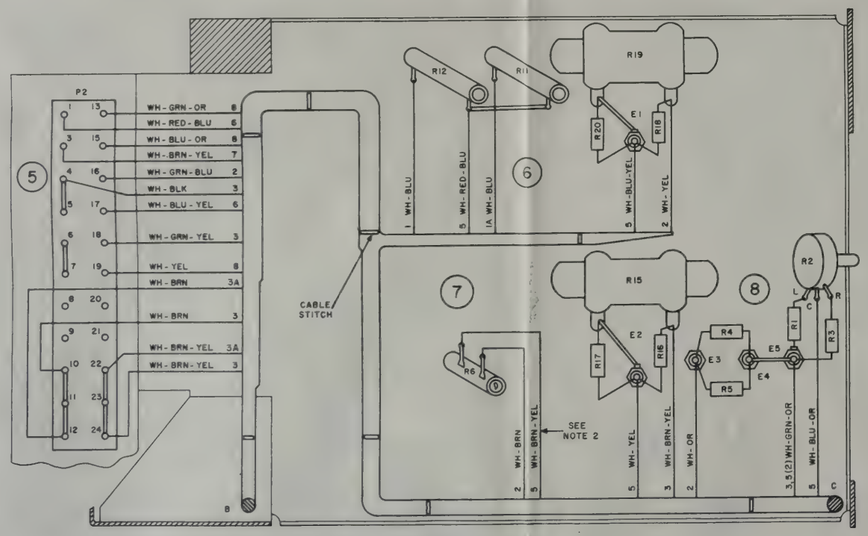
TM687-321

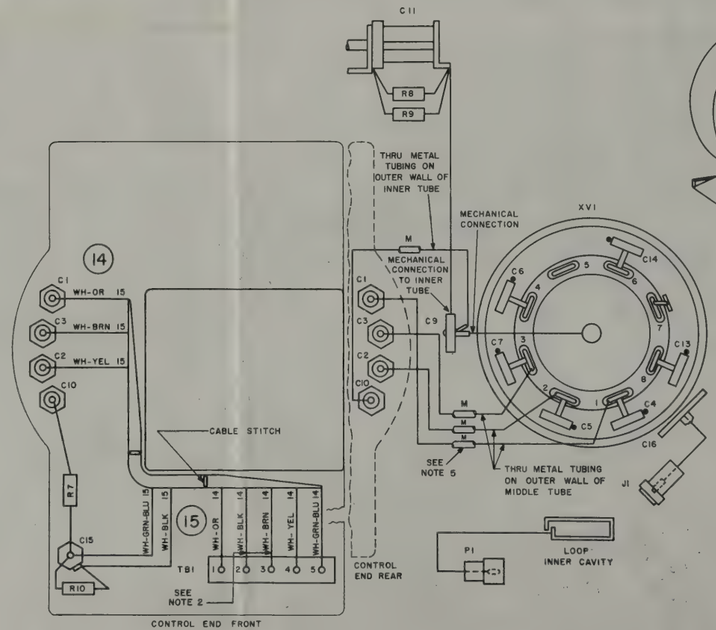
381345 O - 56 (In pocket)

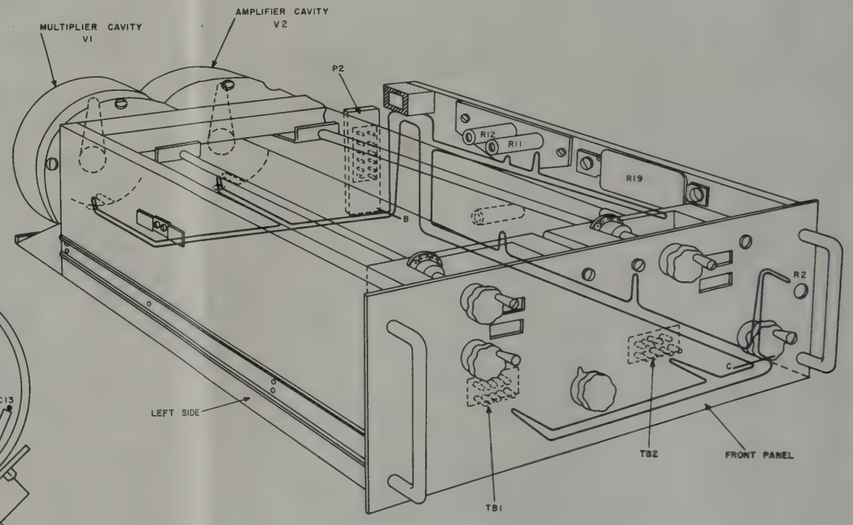












AREA NUMBER	VIEW
1-3	VIEW 1
5-8	VIEW 2
11-13	DETAIL OF AMPLIFIER
14-15	DETAIL OF MULTIPLIER

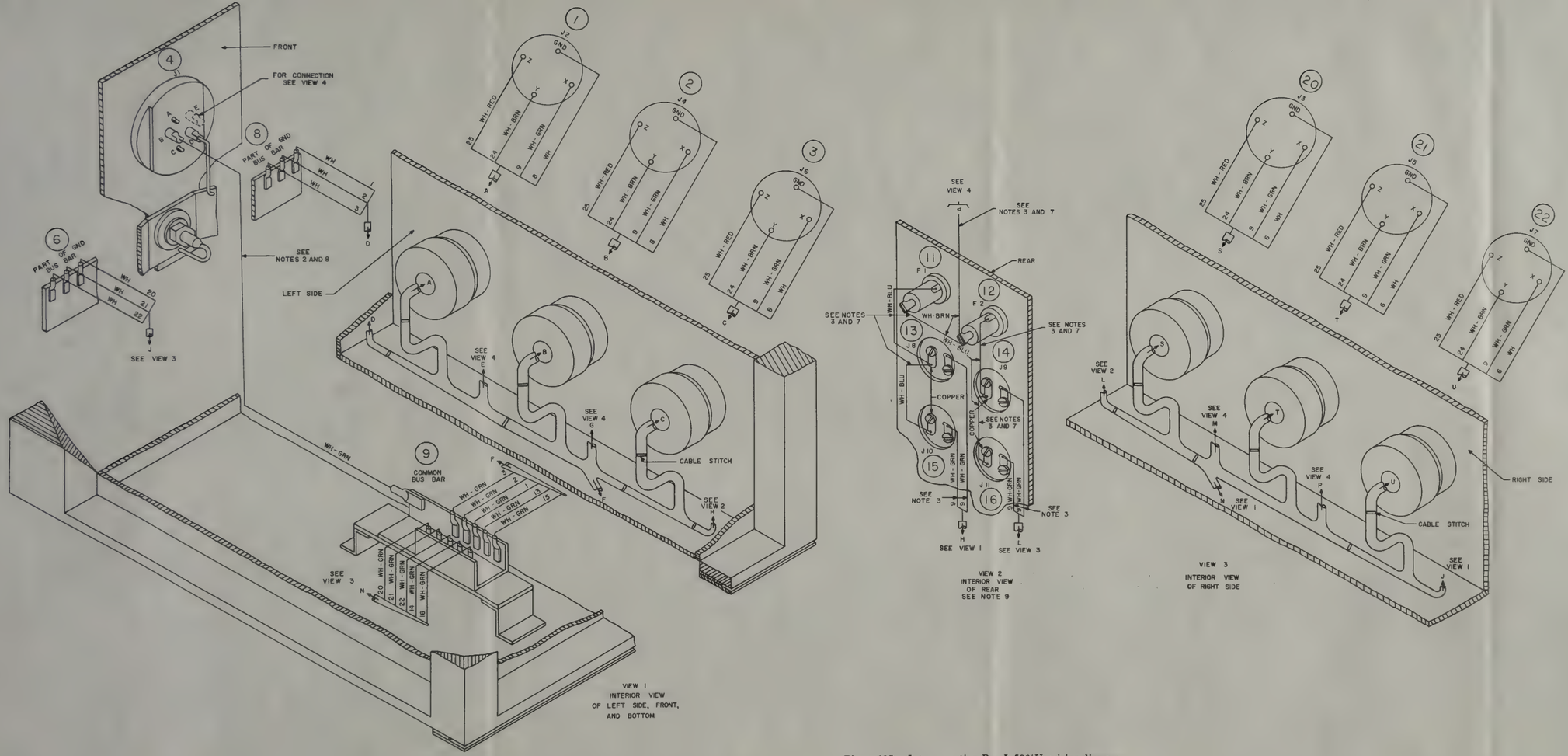
NOTES:

1. WIRING NOT OTHERWISE SPECIFIED IS 22 GAUGE WIRE WITH EXTRUDED NYLON JACKET.
2. THIS WIRING IS 16 GAUGE WIRE WITH EXTRUDED NYLON JACKET.
3. ——— DENOTES 20 GAUGE BARE TINNED ANNEALED COPPER WIRING.
4. BARE STRAP WIRING IS RUN AS SHORT AND AS DIRECT AS POSSIBLE.
5. M DENOTES METAL TUBING.

Figure 293. Radio Frequency Amplifier-Multiplier AM-915/TRC, wiring diagram.

TM 687-322

381345 O - 56 (in pocket)



NOTES:

1. WIRING NOT OTHERWISE SPECIFIED IS 12 GAUGE WIRE WITH EXTRUDED NYLON JACKET.
2. THIS WIRING IS 6 GAUGE WIRE WITH EXTRUDED NYLON JACKET
3. THIS WIRING IS 16 GAUGE WIRE WITH EXTRUDED NYLON JACKET
4. ═══ DENOTES 20 GAUGE BARE TINNED ANNEALED COPPER WIRING.
5. BARE STRAP WIRING IS RUN AS SHORT AND AS DIRECT AS POSSIBLE.
6. WIRING NOT OTHERWISE SPECIFIED IS RUN IN A CABLE FORM
7. THIS WIRING IS CONNECTED DIRECTLY FROM TERMINAL TO TERMINAL IN THE SHORTEST POSSIBLE MANNER.
8. THIS WIRING IS RUN LOOSE AND DRESSED BACK AGAINST CONNECTING BOX.
9. TERMINALS ON CONNECTORS J8, J9, J10, AND J11 ARE SLEEVED WITH 1/2 INCH LONG IMPREGNATED FIBRE GLASS SLEEVING.

AREA NUMBER	VIEW
1-9	1
11-16	2
20-22	3
24-25	4

Figure 295. Interconnecting Box J-532/U, wiring diagram.

TM 687-324

381345 O-56 (In pocket)

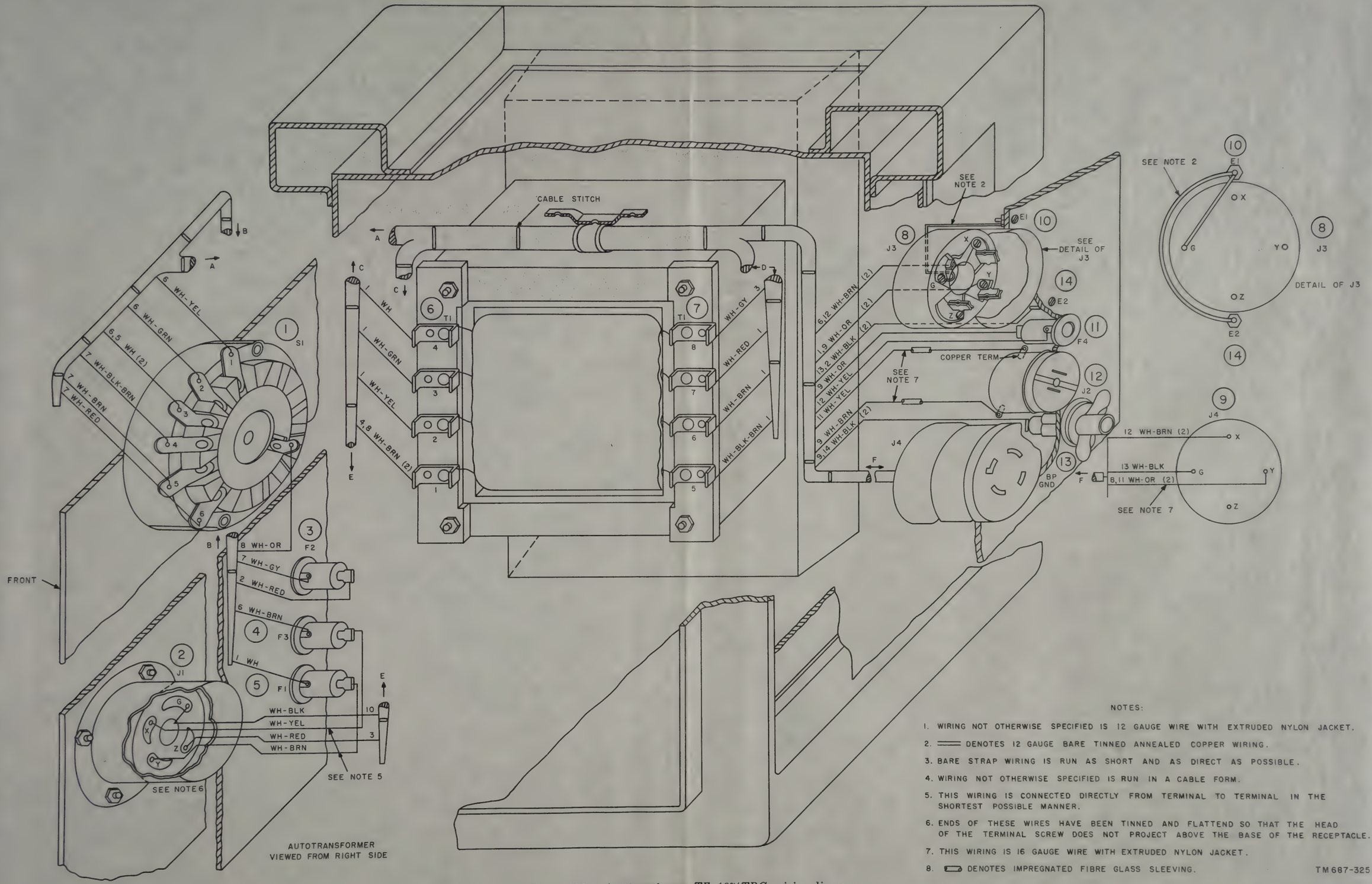
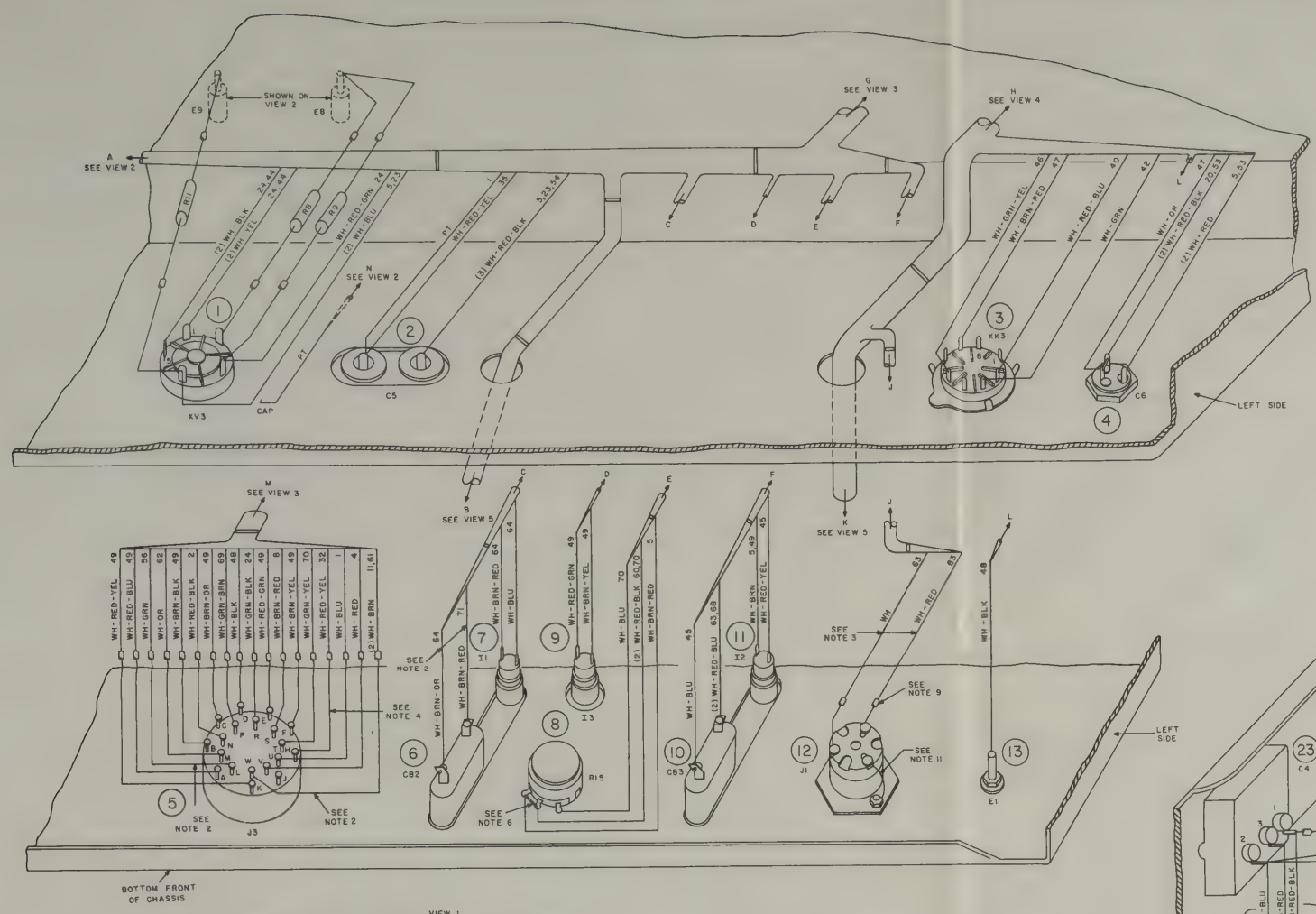


Figure 296. Autotransformer TF-167/TRC, wiring diagram.

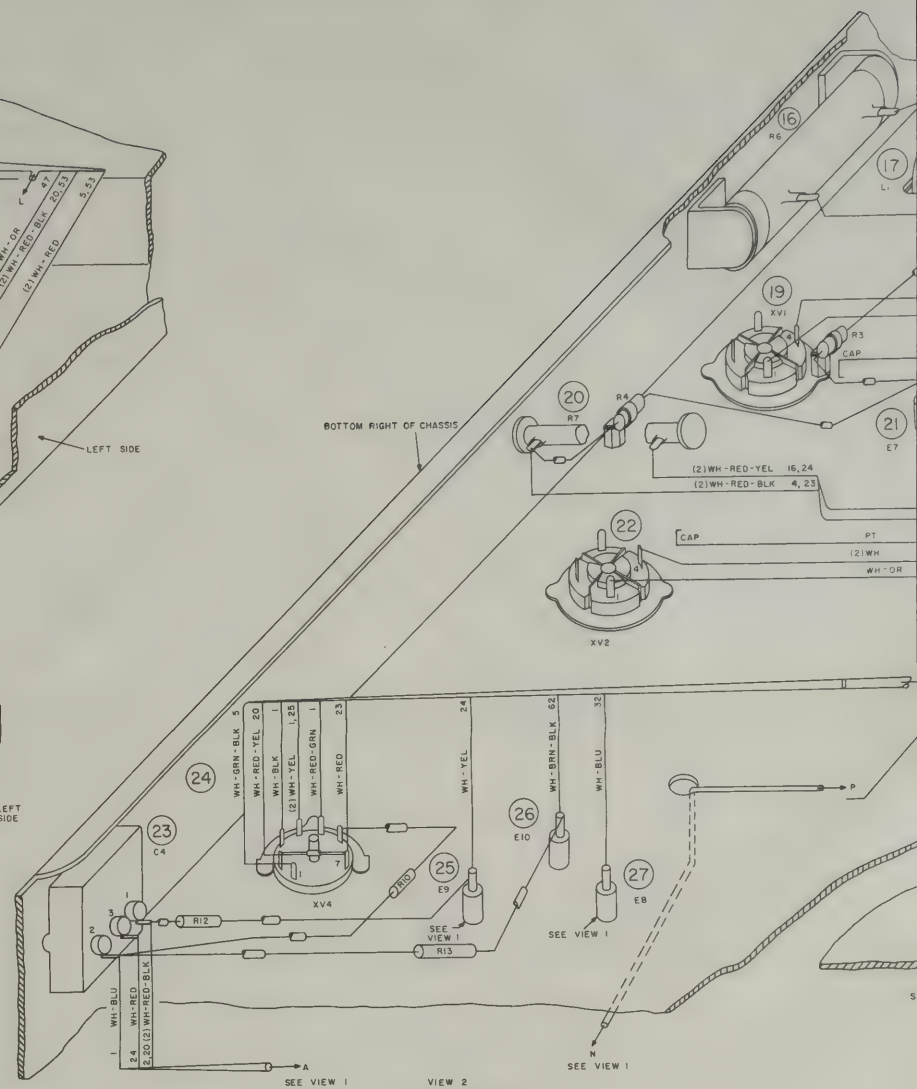
NOTES:

1. WIRING NOT OTHERWISE SPECIFIED IS 12 GAUGE WIRE WITH EXTRUDED NYLON JACKET.
2. ═══ DENOTES 12 GAUGE BARE TINNED ANNEALED COPPER WIRING.
3. BARE STRAP WIRING IS RUN AS SHORT AND AS DIRECT AS POSSIBLE.
4. WIRING NOT OTHERWISE SPECIFIED IS RUN IN A CABLE FORM.
5. THIS WIRING IS CONNECTED DIRECTLY FROM TERMINAL TO TERMINAL IN THE SHORTEST POSSIBLE MANNER.
6. ENDS OF THESE WIRES HAVE BEEN TINNED AND FLATTEND SO THAT THE HEAD OF THE TERMINAL SCREW DOES NOT PROJECT ABOVE THE BASE OF THE RECEPTACLE.
7. THIS WIRING IS 16 GAUGE WIRE WITH EXTRUDED NYLON JACKET.
8. ▭ DENOTES IMPREGNATED FIBRE GLASS SLEEVING.

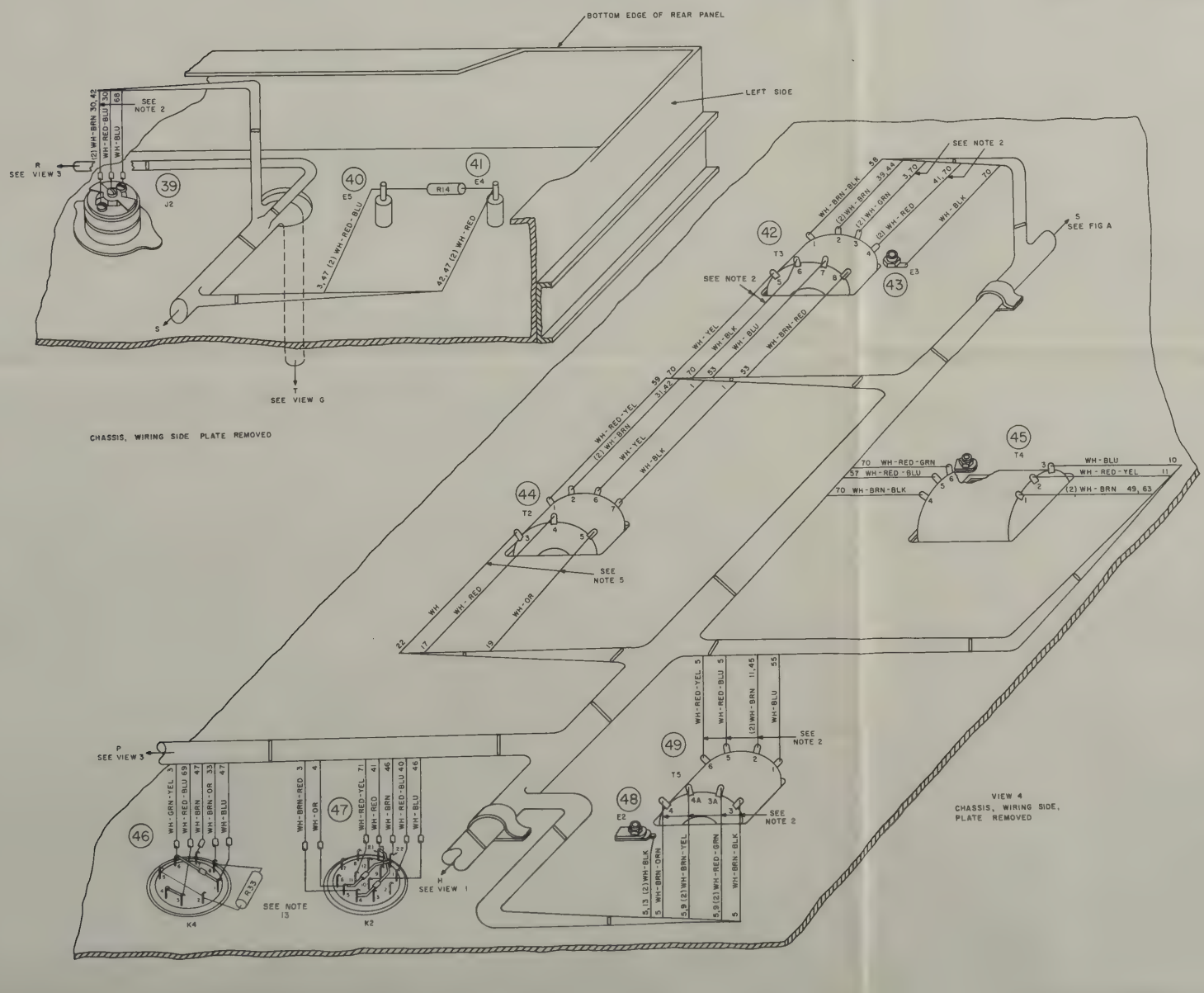
TM 687-325



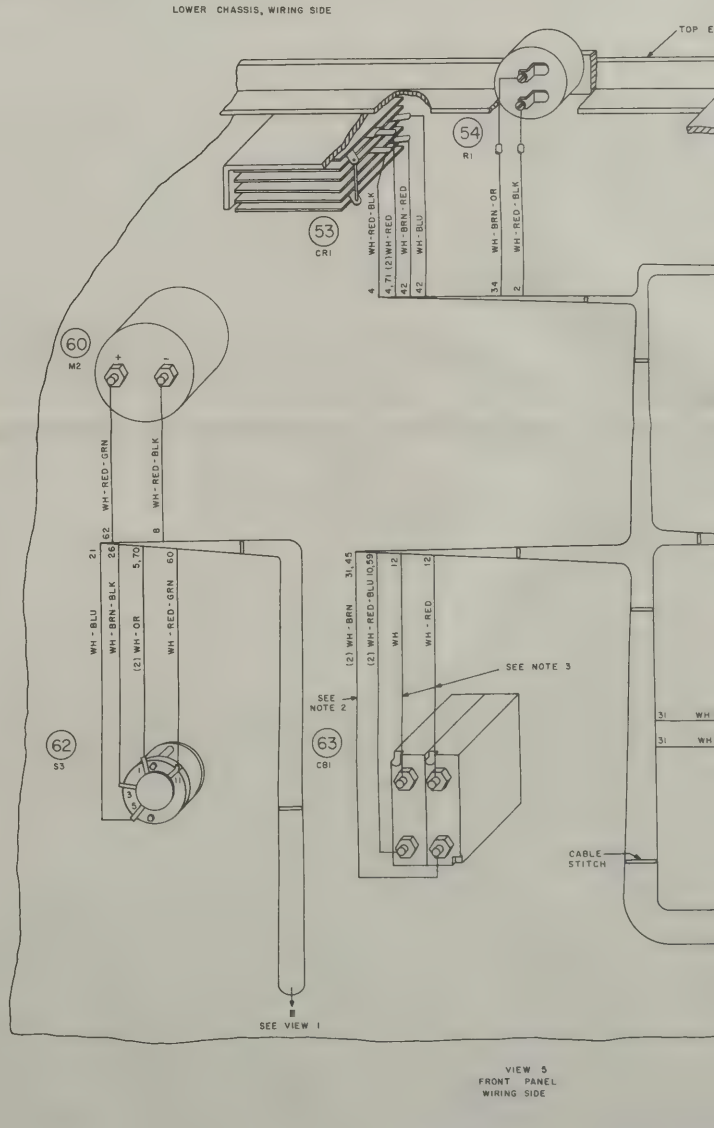
VIEW 1
LOWER CHASSIS AND LOWER PORTION OF FRONT PANEL WIRING



VIEW 2
LOWER CHASSIS, WIRING SIDE

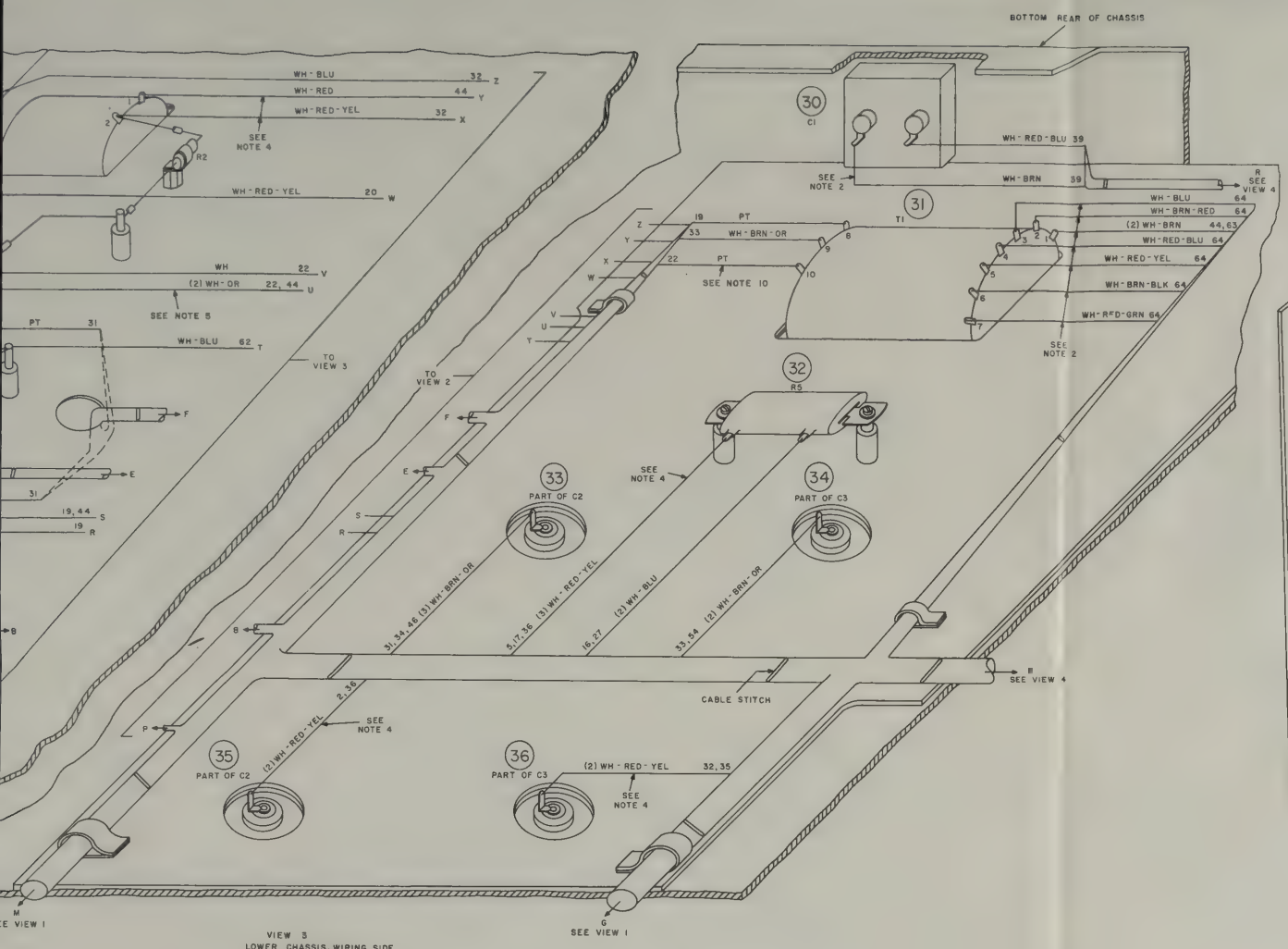


VIEW 4
CHASSIS, WIRING SIDE,
PLATE REMOVED

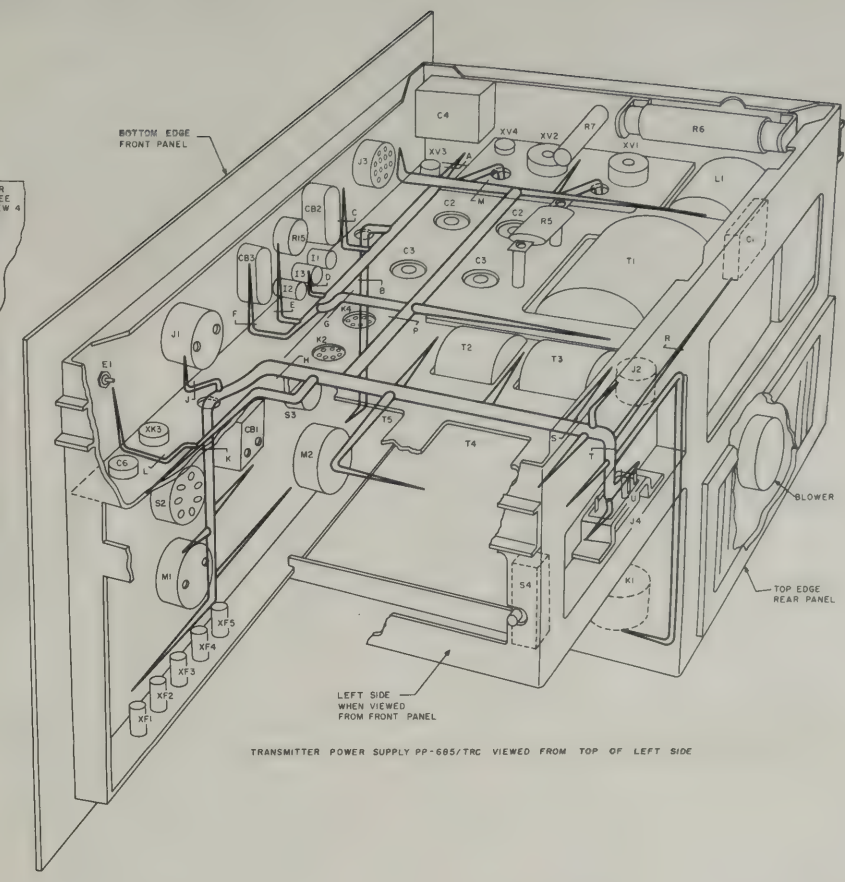


VIEW 5
FRONT PANEL
WIRING SIDE

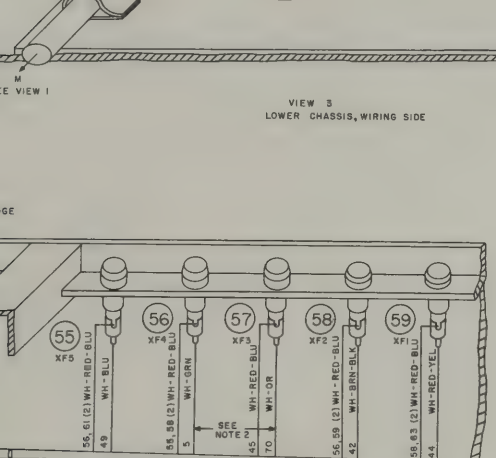
Figure 297. Power Supply PP-685/TRC

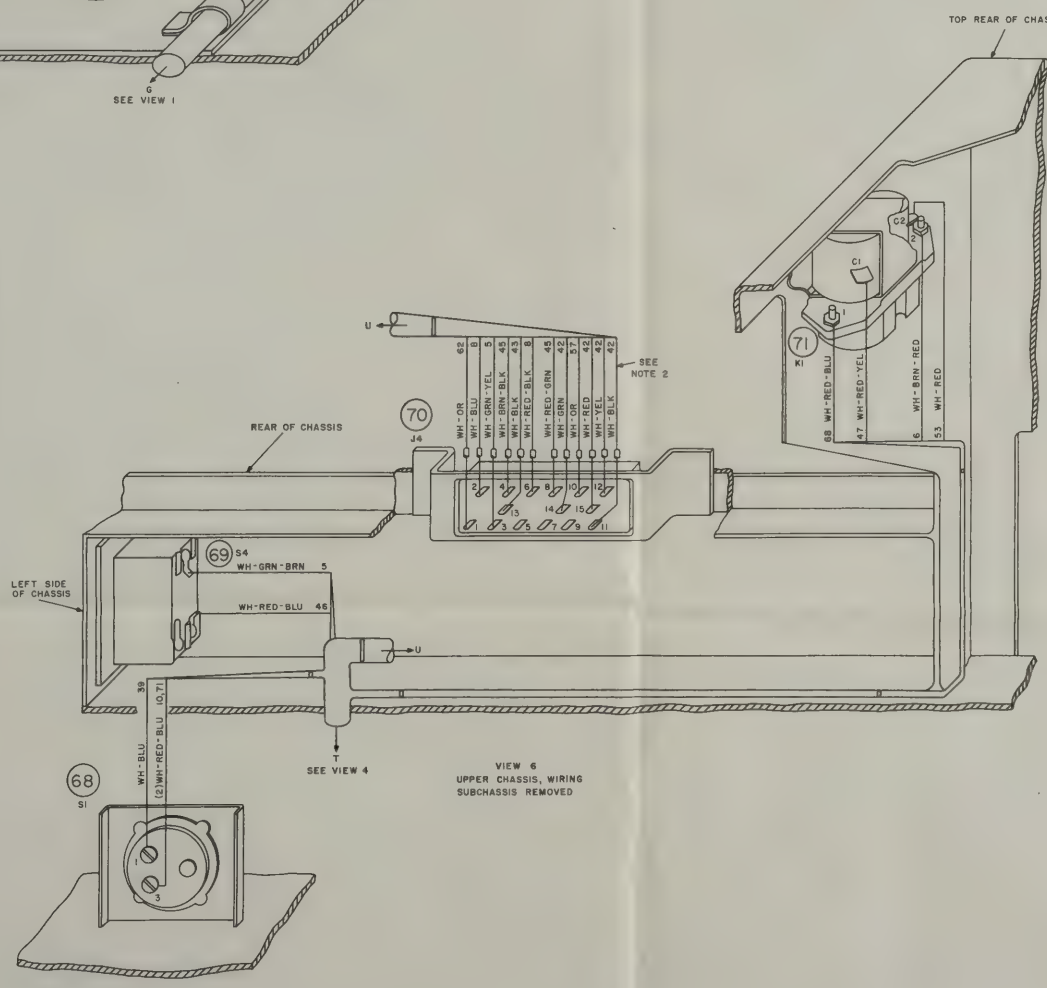


VIEW 3
LOWER CHASSIS, WIRING SIDE

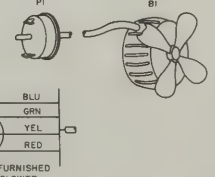


TRANSMITTER POWER SUPPLY PP-685/TRC VIEWED FROM TOP OF LEFT SIDE





VIEW 6
UPPER CHASSIS, WIRING
SUBCHASSIS REMOVED



NOTES:

1. WIRING NOT OTHERWISE SPECIFIED IS 20 GAUGE WIRE WITH EXTRUDED NYLON JACKET.
2. THIS WIRING IS 16 GAUGE WIRE WITH EXTRUDED NYLON JACKET.
3. THIS WIRING IS 12 GAUGE WIRE WITH EXTRUDED NYLON JACKET.
4. THIS WIRING IS 20 GAUGE WIRE WITH AN EXTRUDED NYLON JACKET AND INSULATION WHICH HAS A MAXIMUM RATED WORKING VOLTAGE OF 600 VOLTS AC R.M.S AND 1000 VOLTS DC.
5. THIS WIRING IS 16 GAUGE WIRE WITH AN EXTRUDED NYLON JACKET AND INSULATION WHICH HAS A MAXIMUM RATED WORKING VOLTAGE OF 600 VOLTS AC R.M.S. AND 1000 VOLTS DC.
6. ═══ DENOTES 20 GAUGE BARE TINNED ANNEALED COPPER WIRING
7. BARE STRAP WIRING IS RUN AS SHORT AND AS DIRECT AS POSSIBLE
8. ALL WIRING, EXCEPT BARE STRAP WIRE AND JUMPER WIRE, IS RUN IN CABLE FORM.
9. ▭ DENOTES IMPREGNATED FIBRE GLASS SLEEVING.
10. PT DENOTES LEADS WHICH ARE SUPPLIED WITH THE APPARATUS AND RUN IN THE CABLE FORM
11. THIS WIRE IS A JUMPER WIRE.
12. ALL SOLDERED CONNECTIONS ARE COVERED WITH A MOISTURE AND FUNGUS RESISTANT COATING
13. R33 NOT USED ONLY ON ORDER NO. 16811-PHILA-51 (SERIAL NUMBERS 1 THROUGH 58)

AREA NUMBERS	VIEW
1-13	1
16-27	2
30-36	3
39-49	4
53-64	5

S3 SW POS AS SHOWN ON SCHEMATIC DIAGRAM	SWITCH PANEL MARKING	SWITCH CONTACTS MADE
1	150 UPPER SCALE	11-1
2	275 LOWER SCALE	11-3
3	750 LOWER SCALE	11-5

low-voltage rectifier plug-in assembly, wiring diagram.

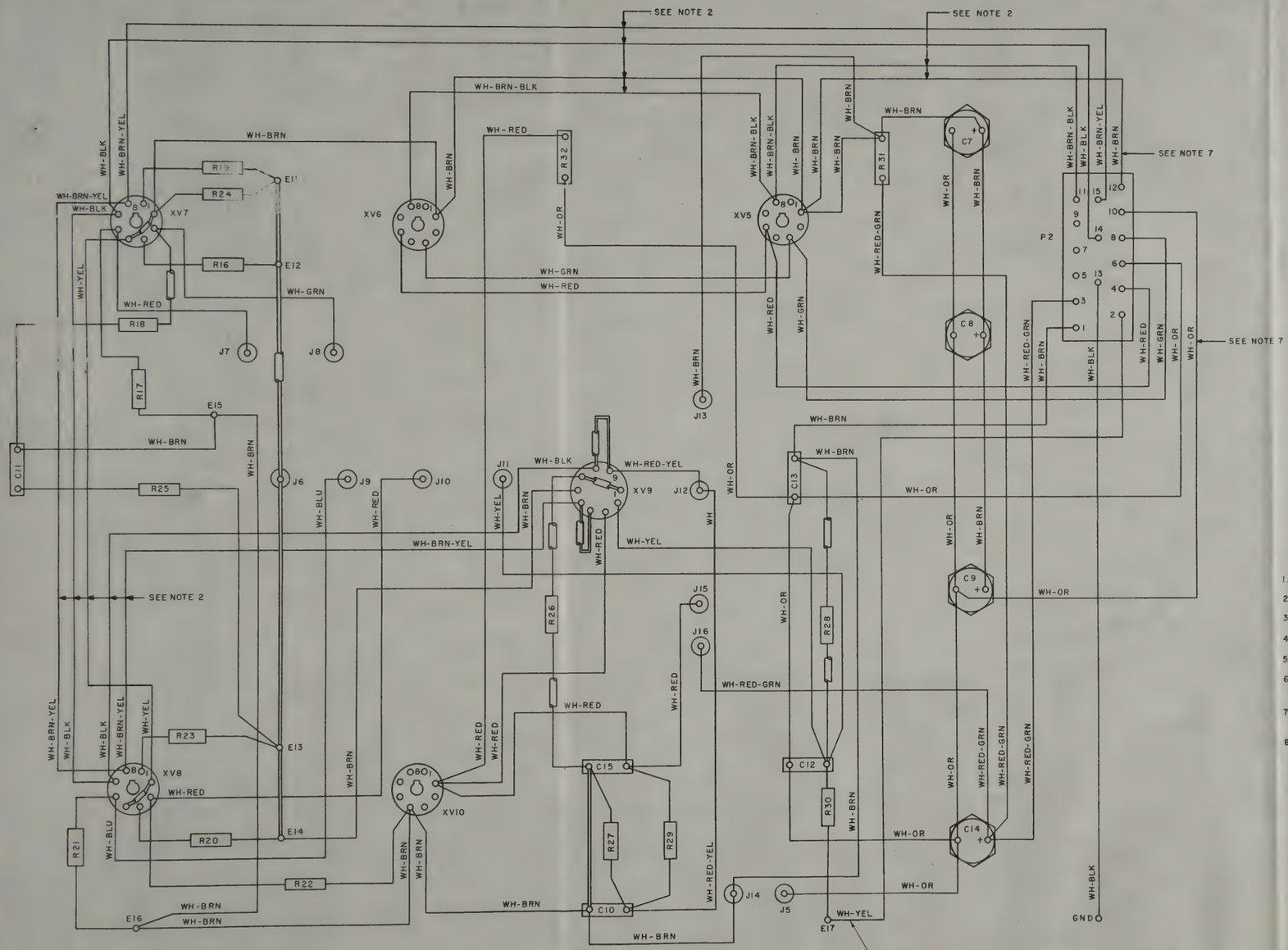
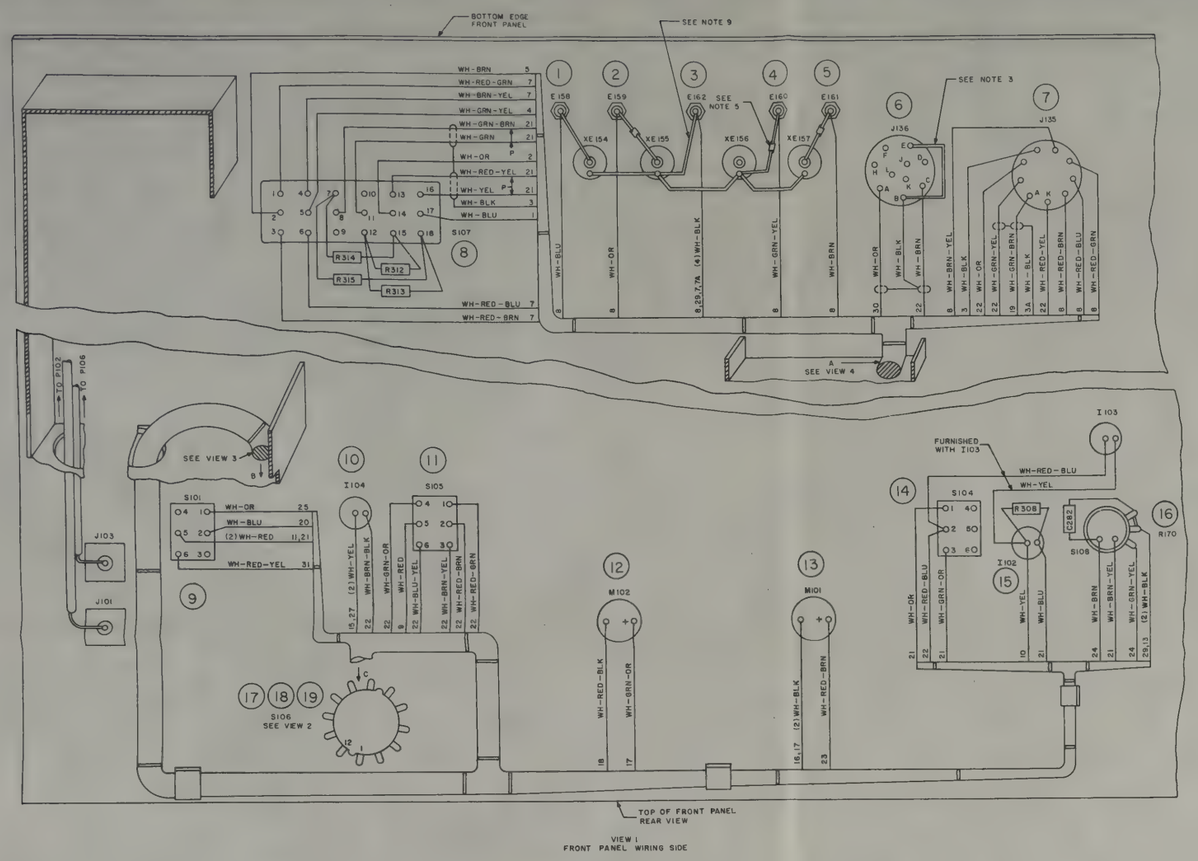


Figure 298. Power Supply PP-685/TRC low-voltage rectifier plug-in assembly, wiring diagram.

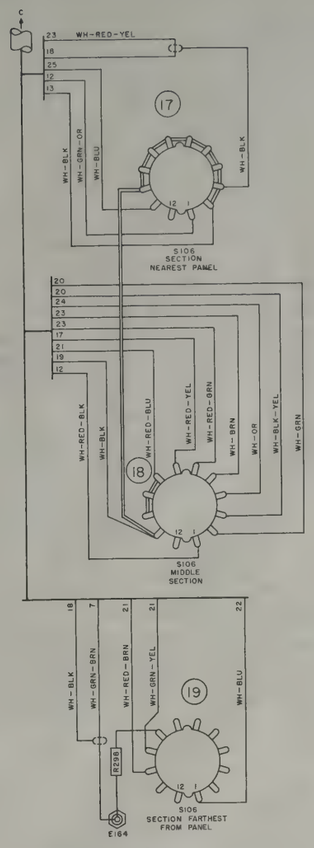
NOTES:

1. WIRING NOT OTHERWISE SPECIFIED IS 20 GAUGE WIRE WITH EXTRUDED NYLON JACKET.
2. THIS WIRING IS 16 GAUGE WIRE WITH EXTRUDED NYLON JACKET.
3. ═══ DENOTES 20 GAUGE BARE TINNED ANNEALED COPPER WIRING.
4. BARE STRAP WIRING IS RUN AS SHORT AND AS DIRECT AS POSSIBLE.
5. ▭ DENOTES IMPREGNATED FIBRE GLASS SLEEVING.
6. WIRING NOT OTHERWISE SPECIFIED IS RUN LOOSE AND DRESSED BACK AGAINST THE CHASSIS IN THE MOST CONVENIENT MANNER.
7. THIS TERMINAL IS COVERED WITH 1/2 INCH IMPREGNATED FIBRE GLASS SLEEVING.
8. SOME PLUG-IN UNITS ARE FURNISHED WITH R30 CONNECTED DIRECTLY TO TERMINAL 2 OF P2, IN PLACE OF AS SHOWN.

TM 687-326



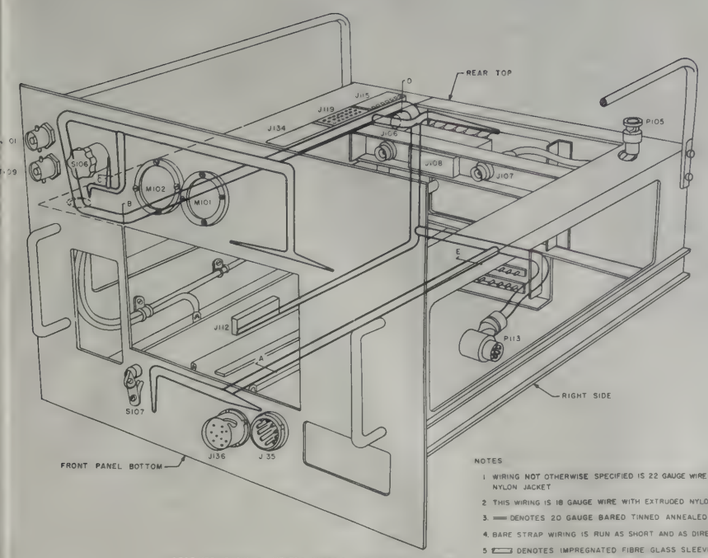
VIEW 1
FRONT PANEL WIRING SIDE



VIEW 2
MEASURE SWITCH AS VIEWED FROM WIRING SIDE

MEASURE SWITCH INFORMATION

S106 SW POS AS SHOWN ON WIRING DIAGRAM	SWITCH PANEL MARKING	SWITCH CONTACTS MADE SECTIONS 1, 2 AND 3 REAR
1	OSC	1-2
2	MIXER	1-3
3	SIG LEV	1-4
4	1ST LIM	1-5
5	2ND LIM	1-6
6	AFC BAL	1-7
7	NTR CAL	1-8
8	IKC OUT	1-9
9	68KC OUT	1-10
10	B+	1-11

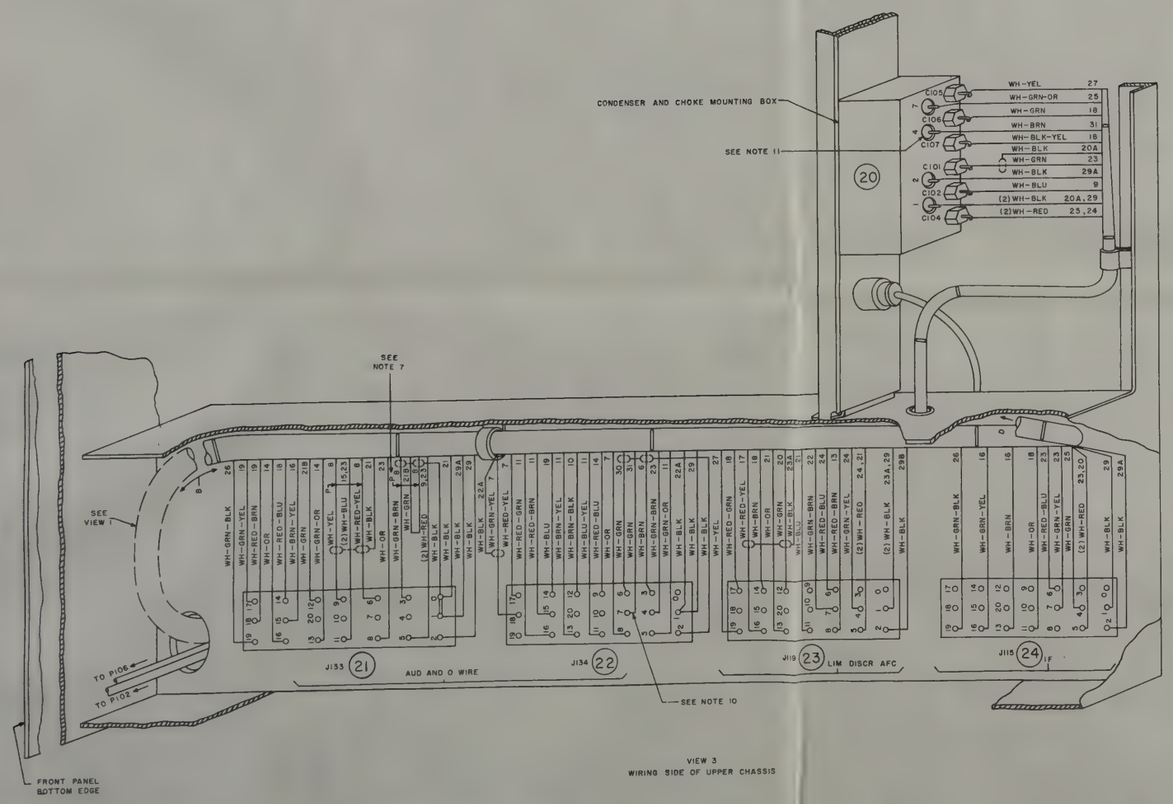


RECEIVER, RADIO R-417/TRC CHASSIS VIEWED FROM FRONT

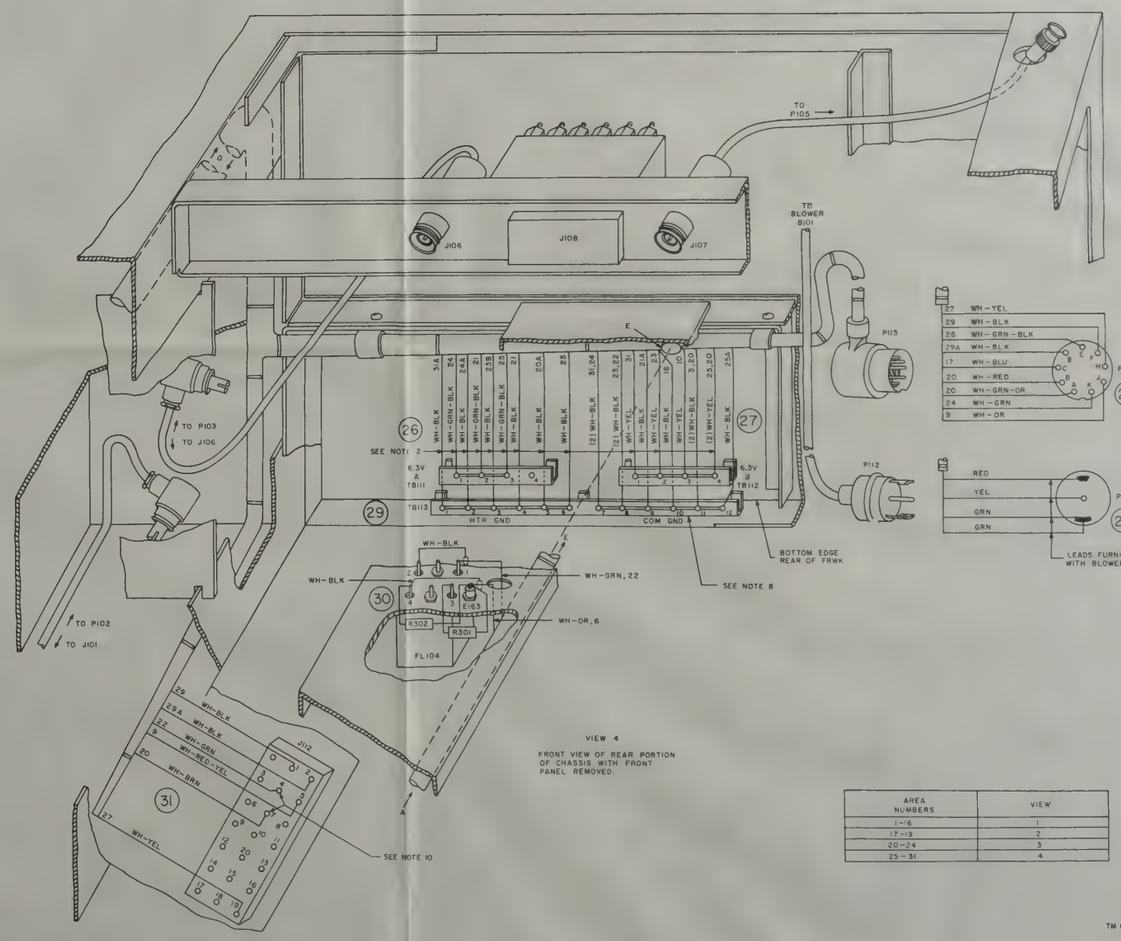
NOTES:

1. WIRING NOT OTHERWISE SPECIFIED IS 22 GAUGE WIRE WITH EXTRUDED NYLON JACKET
2. THIS WIRING IS 18 GAUGE WIRE WITH EXTRUDED NYLON JACKET
3. ═══ DENOTES 20 GAUGE BARED TINNED ANNEALED COPPER WIRING
4. BARE STRAP WIRING IS RUN AS SHORT AND AS DIRECT AS POSSIBLE
5. ▭ DENOTES IMPREGNATED FIBRE GLASS SLEEVING
6. WIRING NOT OTHERWISE SPECIFIED IS RUN IN CABLE FORM
7. P DENOTES PAIRED LEADS WHICH ARE TWISTED
8. PASS LEADS CONNECTING TO TB113 UNDER STRIP BEFORE CONNECTING TO TERMINALS
9. SOME UNITS ARE FURNISHED WITH THE FOLLOWING CHANGES
   A. BARE WIRES CONNECTING TO E162, AND XE154 THROUGH XE157 REMOVED
   B. GROUNDING LUG ADDED NEAR E162
   C. FOUR WH-BLK LEADS FROM STATIONS 8, 29, 7, AND 7A CONNECTED TO GROUNDING LUG
   D. SHORT 20 GAUGE BARE TINNED ANNEALED COPPER STRAP CONNECTED FROM ADDED GROUNDING LUG TO E162
10. SOME UNITS ARE FURNISHED WITH THE FOLLOWING CHANGES

STATION	TERMINAL	PRESENT WIRING		CHANGED WIRING	
		COLOR CODE	STATION	COLOR CODE	STATION
22	3	WH-GRN	31	WH-GRN	20
20	4	WH-BRN	31	WH-GRN	22
31	4	WH-GRN	22	REMOVED	
3	7	WH-BRN	20	REMOVED	



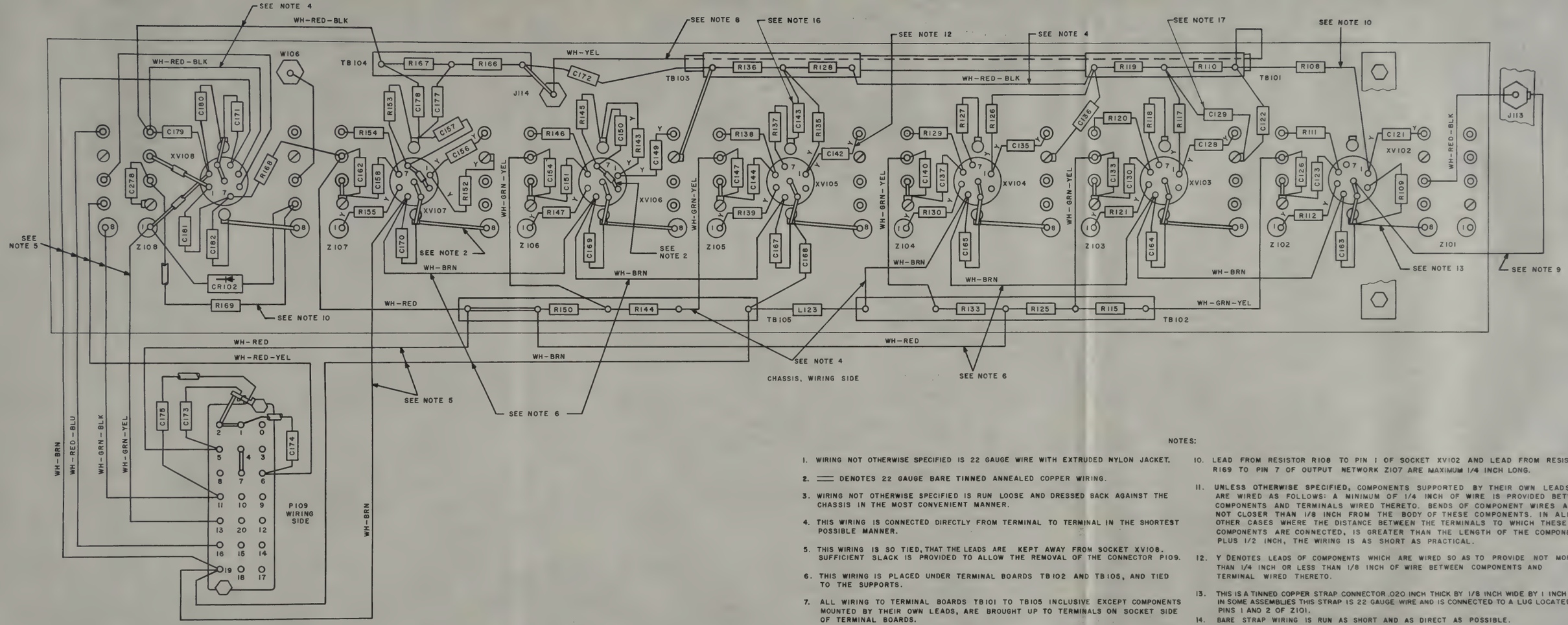
VIEW 3
WIRING SIDE OF UPPER CHASSIS



VIEW 4
FRONT VIEW OF REAR PORTION OF CHASSIS WITH FRONT PANEL REMOVED.

AREA NUMBERS	VIEW
1-16	1
17-19	2
20-24	3
25-31	4

Figure 299. Receiver frame and front panel, wiring diagram.



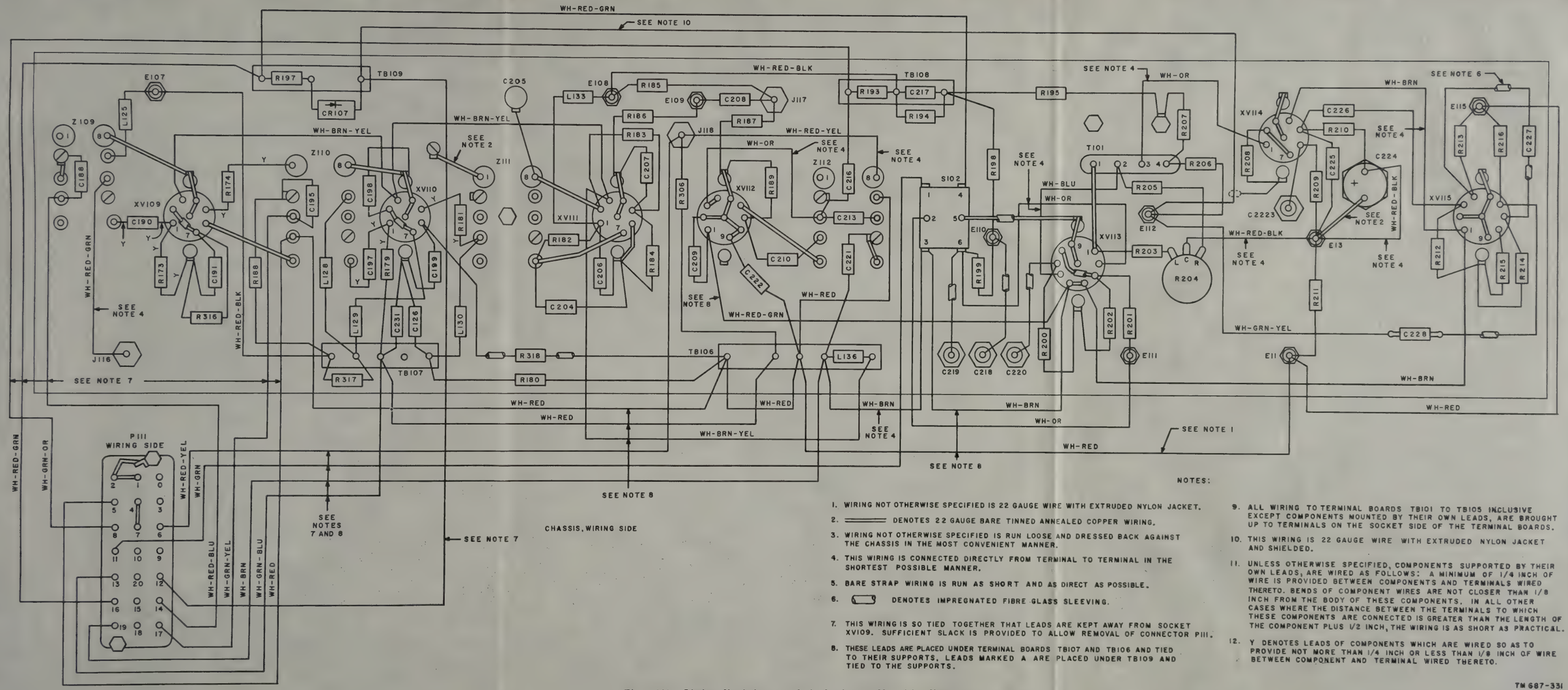
NOTES:

1. WIRING NOT OTHERWISE SPECIFIED IS 22 GAUGE WIRE WITH EXTRUDED NYLON JACKET.
2. ═══ DENOTES 22 GAUGE BARE TINNED ANNEALED COPPER WIRING.
3. WIRING NOT OTHERWISE SPECIFIED IS RUN LOOSE AND DRESSED BACK AGAINST THE CHASSIS IN THE MOST CONVENIENT MANNER.
4. THIS WIRING IS CONNECTED DIRECTLY FROM TERMINAL TO TERMINAL IN THE SHORTEST POSSIBLE MANNER.
5. THIS WIRING IS SO TIED, THAT THE LEADS ARE KEPT AWAY FROM SOCKET XV108. SUFFICIENT SLACK IS PROVIDED TO ALLOW THE REMOVAL OF THE CONNECTOR P109.
6. THIS WIRING IS PLACED UNDER TERMINAL BOARDS TB102 AND TB105, AND TIED TO THE SUPPORTS.
7. ALL WIRING TO TERMINAL BOARDS TB101 TO TB105 INCLUSIVE EXCEPT COMPONENTS MOUNTED BY THEIR OWN LEADS, ARE BROUGHT UP TO TERMINALS ON SOCKET SIDE OF TERMINAL BOARDS.
8. THIS WIRE IS RUN THROUGH BRASS TUBE FOR SHIELDING PURPOSES.
9. TAB OF TERMINAL HAS BEEN CUT TO SHORTEST LENGTH AND SOLDERED TO CENTER SLEEVE OF SOCKET XV102.
10. LEAD FROM RESISTOR R108 TO PIN 1 OF SOCKET XV102 AND LEAD FROM RESISTOR R169 TO PIN 7 OF OUTPUT NETWORK Z107 ARE MAXIMUM 1/4 INCH LONG.
11. UNLESS OTHERWISE SPECIFIED, COMPONENTS SUPPORTED BY THEIR OWN LEADS, ARE WIRED AS FOLLOWS: A MINIMUM OF 1/4 INCH OF WIRE IS PROVIDED BETWEEN COMPONENTS AND TERMINALS WIRED THERETO. BENDS OF COMPONENT WIRES ARE NOT CLOSER THAN 1/8 INCH FROM THE BODY OF THESE COMPONENTS. IN ALL OTHER CASES WHERE THE DISTANCE BETWEEN THE TERMINALS TO WHICH THESE COMPONENTS ARE CONNECTED, IS GREATER THAN THE LENGTH OF THE COMPONENT PLUS 1/2 INCH, THE WIRING IS AS SHORT AS PRACTICAL.
12. Y DENOTES LEADS OF COMPONENTS WHICH ARE WIRED SO AS TO PROVIDE NOT MORE THAN 1/4 INCH OR LESS THAN 1/8 INCH OF WIRE BETWEEN COMPONENTS AND TERMINAL WIRED THERETO.
13. THIS IS A TINNED COPPER STRAP CONNECTOR .020 INCH THICK BY 1/8 INCH WIDE BY 1 INCH LONG. IN SOME ASSEMBLIES THIS STRAP IS 22 GAUGE WIRE AND IS CONNECTED TO A LUG LOCATED BETWEEN PINS 1 AND 2 OF Z101.
14. BARE STRAP WIRING IS RUN AS SHORT AND AS DIRECT AS POSSIBLE.
15. ▭ DENOTES IMPREGNATED FIBRE GLASS SLEEVING.
16. IN SOME ASSEMBLIES C143 SHUNTS R136.
17. IN SOME ASSEMBLIES C129 IS GROUNDED AT THE SAME LUG AS R118.

Figure 302. Receiver if. amplifier plug-in assembly, wiring diagram.

TM 687-330

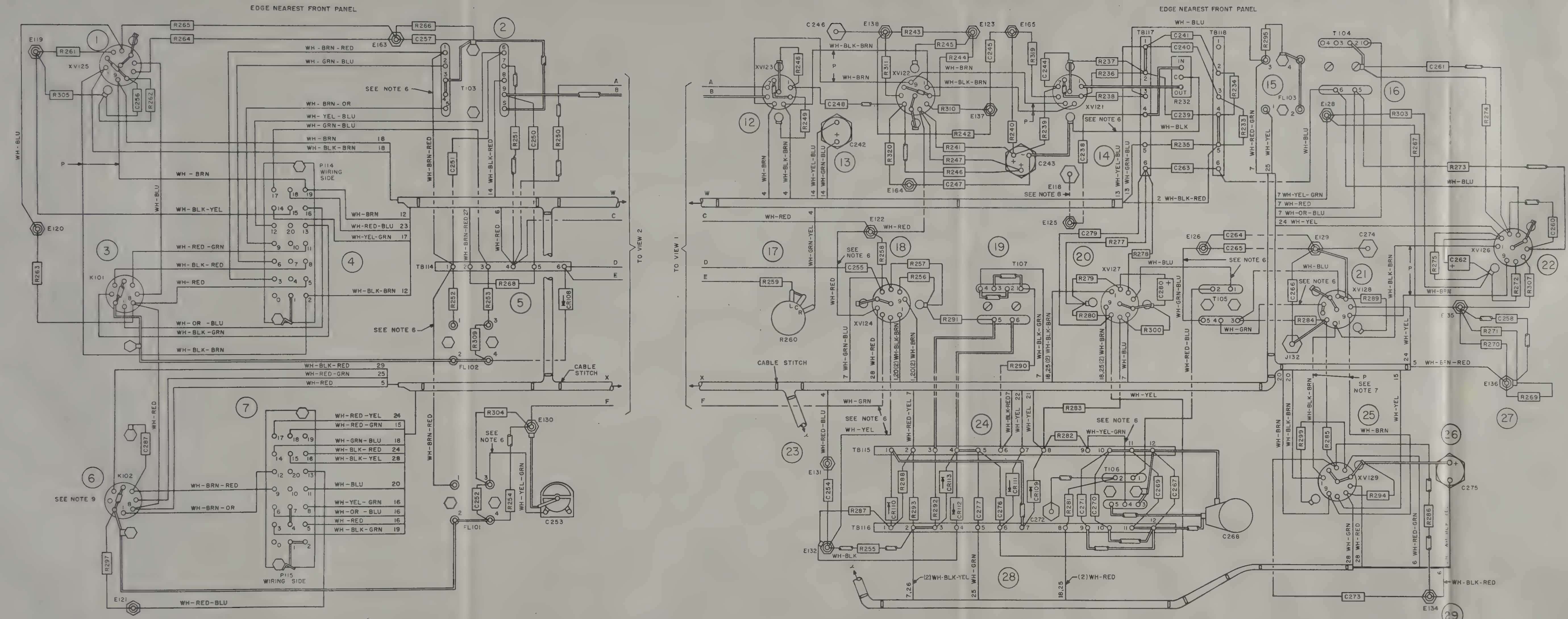
381345 O - 56 (In pocket)



NOTES:

1. WIRING NOT OTHERWISE SPECIFIED IS 22 GAUGE WIRE WITH EXTRUDED NYLON JACKET.
2. ═══ DENOTES 22 GAUGE BARE TINNED ANNEALED COPPER WIRING.
3. WIRING NOT OTHERWISE SPECIFIED IS RUN LOOSE AND DRESSED BACK AGAINST THE CHASSIS IN THE MOST CONVENIENT MANNER.
4. THIS WIRING IS CONNECTED DIRECTLY FROM TERMINAL TO TERMINAL IN THE SHORTEST POSSIBLE MANNER.
5. BARE STRAP WIRING IS RUN AS SHORT AND AS DIRECT AS POSSIBLE.
6. ⊂⊃ DENOTES IMPREGNATED FIBRE GLASS SLEEVING.
7. THIS WIRING IS SO TIED TOGETHER THAT LEADS ARE KEPT AWAY FROM SOCKET XV109. SUFFICIENT SLACK IS PROVIDED TO ALLOW REMOVAL OF CONNECTOR P111.
8. THESE LEADS ARE PLACED UNDER TERMINAL BOARDS TB107 AND TB106 AND TIED TO THEIR SUPPORTS. LEADS MARKED A ARE PLACED UNDER TB109 AND TIED TO THE SUPPORTS.
9. ALL WIRING TO TERMINAL BOARDS TB101 TO TB105 INCLUSIVE EXCEPT COMPONENTS MOUNTED BY THEIR OWN LEADS, ARE BROUGHT UP TO TERMINALS ON THE SOCKET SIDE OF THE TERMINAL BOARDS.
10. THIS WIRING IS 22 GAUGE WIRE WITH EXTRUDED NYLON JACKET AND SHIELDED.
11. UNLESS OTHERWISE SPECIFIED, COMPONENTS SUPPORTED BY THEIR OWN LEADS, ARE WIRED AS FOLLOWS: A MINIMUM OF 1/4 INCH OF WIRE IS PROVIDED BETWEEN COMPONENTS AND TERMINALS WIRED THERETO. BENDS OF COMPONENT WIRES ARE NOT CLOSER THAN 1/8 INCH FROM THE BODY OF THESE COMPONENTS. IN ALL OTHER CASES WHERE THE DISTANCE BETWEEN THE TERMINALS TO WHICH THESE COMPONENTS ARE CONNECTED IS GREATER THAN THE LENGTH OF THE COMPONENT PLUS 1/2 INCH, THE WIRING IS AS SHORT AS PRACTICAL.
12. Y DENOTES LEADS OF COMPONENTS WHICH ARE WIRED SO AS TO PROVIDE NOT MORE THAN 1/4 INCH OR LESS THAN 1/8 INCH OF WIRE BETWEEN COMPONENT AND TERMINAL WIRED THERETO.

Figure 303. Limiter, discriminator, and afc plug-in assembly, wiring diagram.



VIEW 1
WIRING SIDE OF CHASSIS, LEFT PORTION

VIEW 2
WIRING SIDE OF CHASSIS, RIGHT PORTION

Figure 304. Receiver base-band amplifier and order wire plug-in assembly, wiring diagram for types 1 and 2 procured on Order No. 16811–Phila–51.

NOTES:

1. WIRING NOT OTHERWISE SPECIFIED IS 22 GAUGE WIRE WITH EXTRUDED NYLON JACKET.
2. ═══ DENOTES 20 GAUGE BARE TINNED ANNEALED COPPER WIRING
3. BARE STRAP WIRING IS RUN AS SHORT AND AS DIRECT AS POSSIBLE
4. WIRING NOT OTHERWISE SPECIFIED IS RUN LOOSE AND DRESSED BACK AGAINST THE CHASSIS IN THE MOST CONVENIENT MANNER
5. ▭ DENOTES IMPREGNATED FIBRE GLASS SLEEVING.
6. THIS WIRING IS CONNECTED DIRECTLY FROM TERMINAL TO TERMINAL IN THE SHORTEST POSSIBLE MANNER.
7. P DENOTES PAIRED LEADS WHICH ARE TWISTED APPROXIMATELY 6 TURNS PER FOOT
8. INNER CONDUCTOR OF COAXIAL CABLE W107.

AREA NUMBERS	LOCATION
1 - 7	VIEW 1
12 - 29	VIEW 2

9. RELAY CONTACTS AT K102 ARE CHANGED AS SHOWN IN FIGURE 189 FOR BASE-BAND AMPLIFIER ASSEMBLIES ON ORDER NO. 16811-PHILA-51 (SERIAL NUMBERS 1 THROUGH 64) AND FOR ORDER NO. 32146-PHILA-51).

TM 687-332

381345 O - 56 (In pocket)

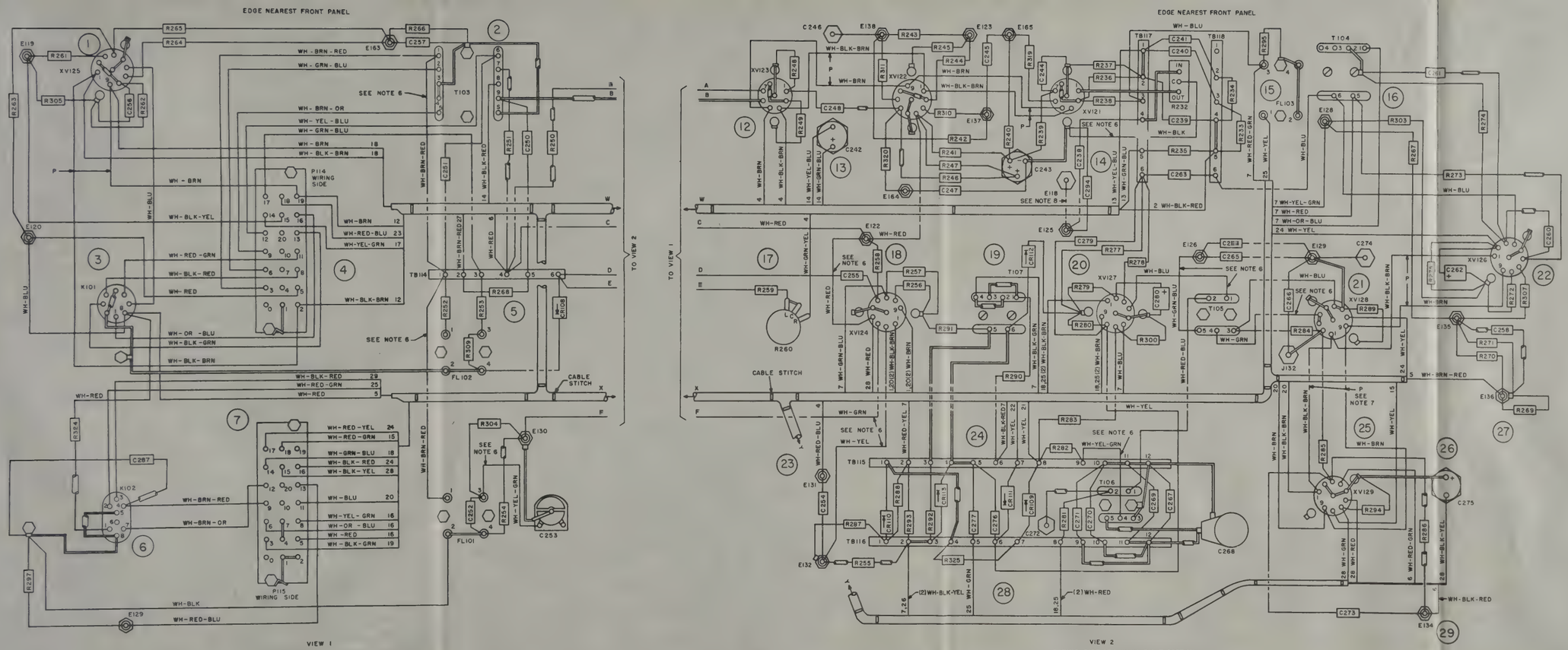
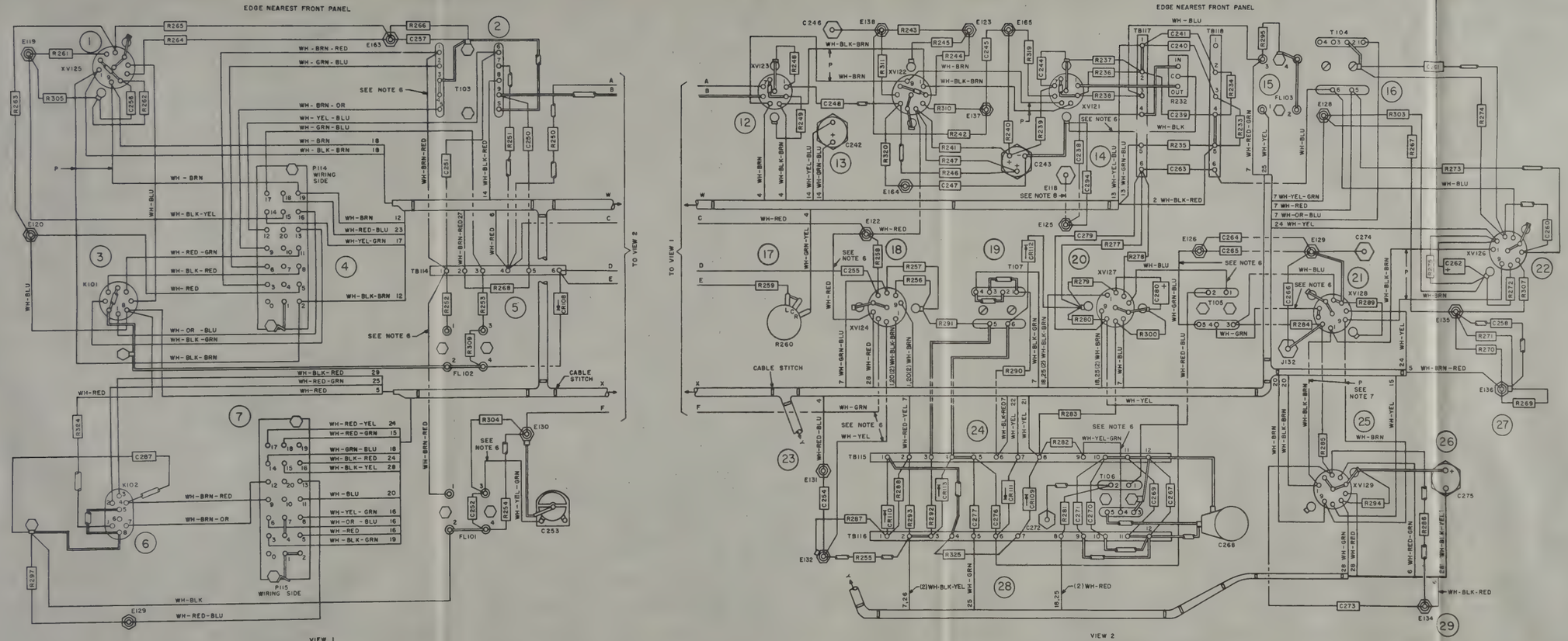


Figure 305. Receiver base-band amplifier and order-wire plug-in assembly, wiring diagram for types 1 through 8 procured on Order No. 16811–Phila–51.

TM 687-432

381345 O - 56 (In pocket)



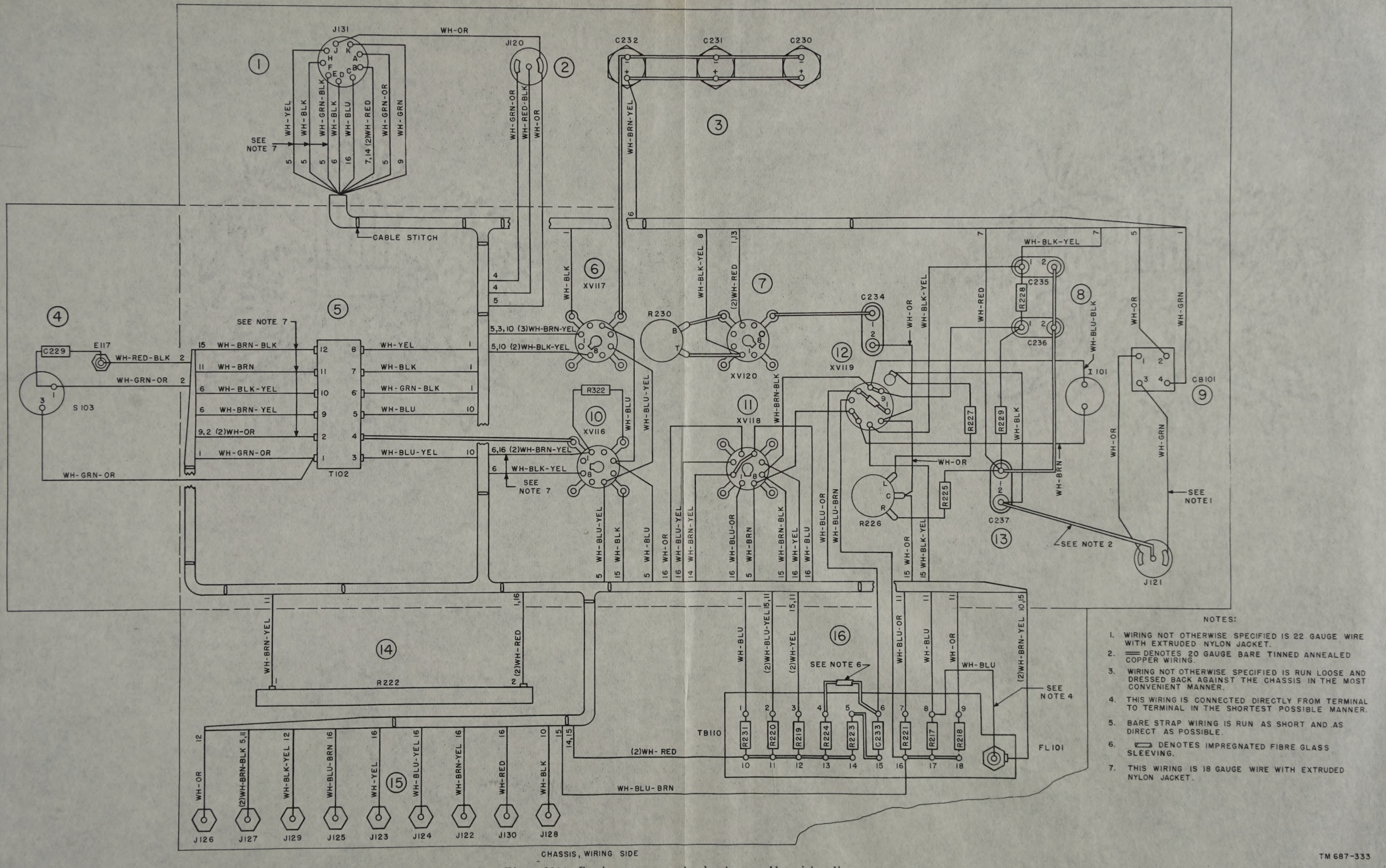
NOTES:

1. WIRING NOT OTHERWISE SPECIFIED IS 22 GAUGE WIRE WITH EXTRUDED NYLON JACKET
2. ═══ DENOTES 20 GAUGE BARE TINNED ANNEALED COPPER WIRING.
3. BARE STRAP WIRING IS RUN AS SHORT AND AS DIRECT AS POSSIBLE
4. WIRING NOT OTHERWISE SPECIFIED IS RUN LOOSE AND DRESSED BACK AGAINST THE CHASSIS IN THE MOST CONVENIENT MANNER.
5. ▭ DENOTES IMPREGNATED FIBRE GLASS SLEEVING.
6. THIS WIRING IS CONNECTED DIRECTLY FROM TERMINAL TO TERMINAL IN THE SHORTEST POSSIBLE MANNER.
7. P DENOTES PAIRED LEADS WHICH ARE TWISTED APPROXIMATELY 6 TURNS PER FOOT
8. INNER CONDUCTOR OF COAXIAL CABLE W107.

AREA NUMBERS	LOCATION
1 - 7	VIEW 1
12 - 29	VIEW 2

Figure 305. Receiver base-band amplifier and order-wire plug-in assembly, wiring diagram for types 1 through 8 procured on Order No. 16811-Phila-51.

381345 O - 56 (In pocket)

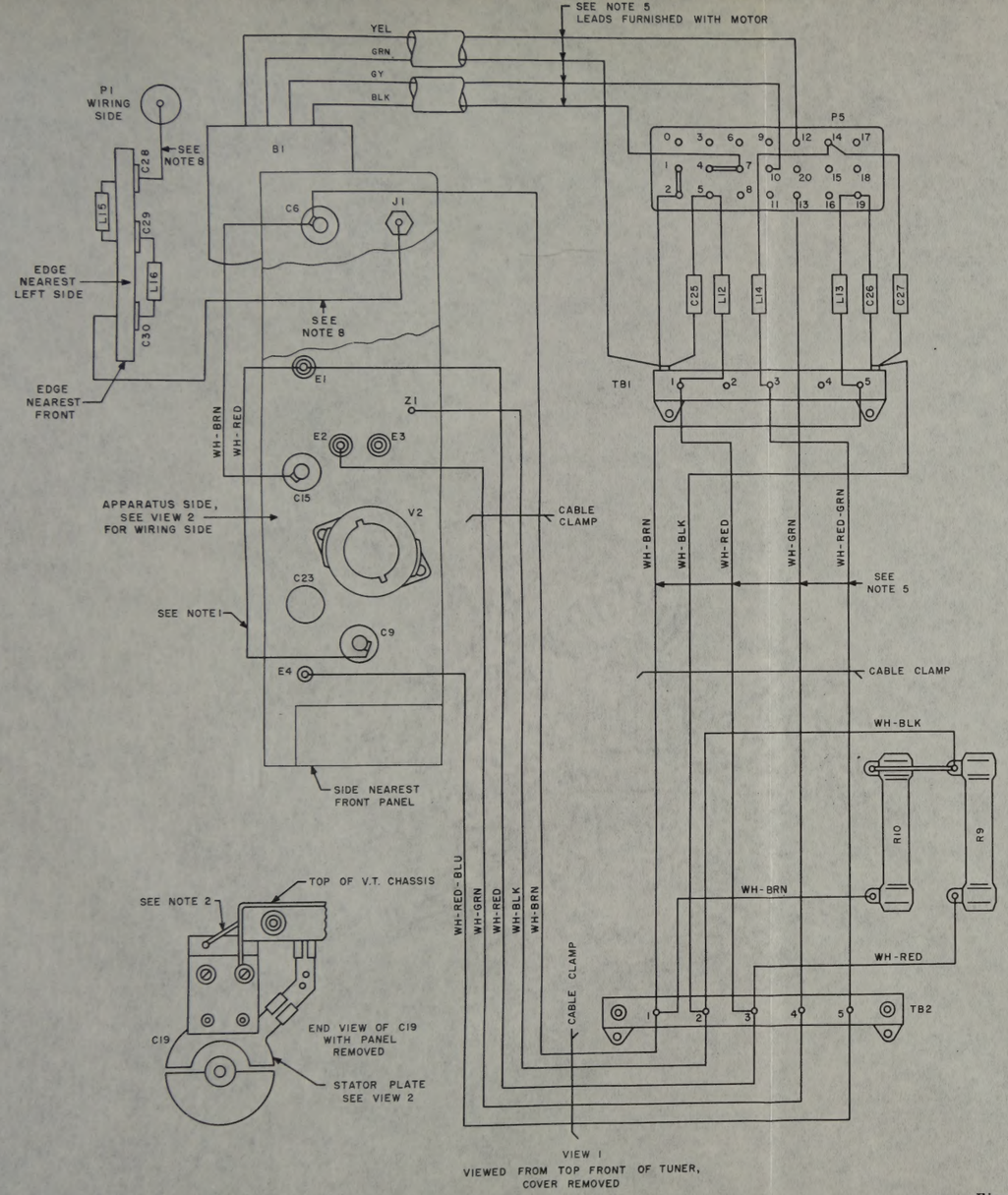


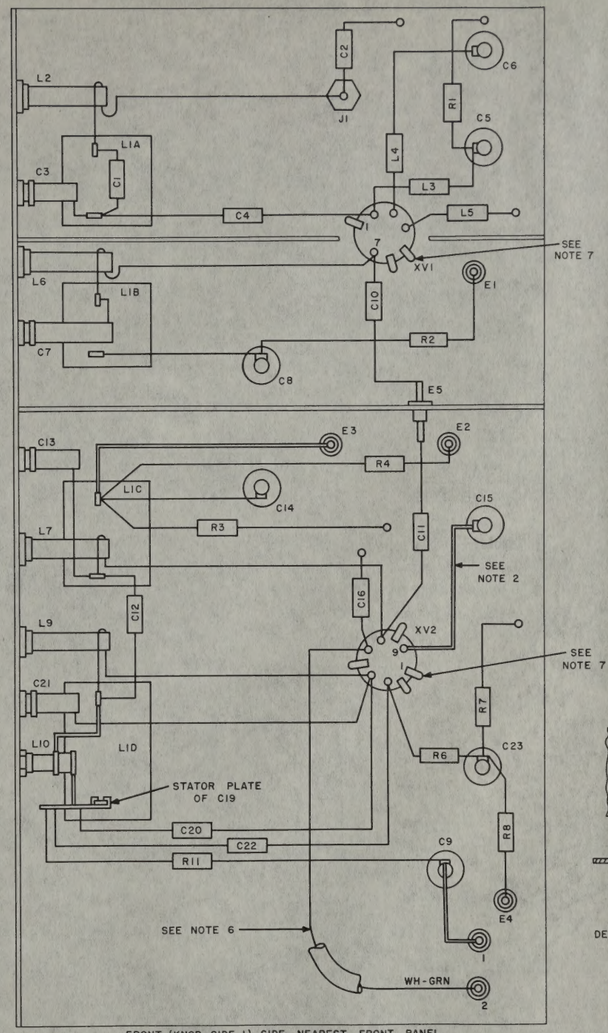
NOTES:

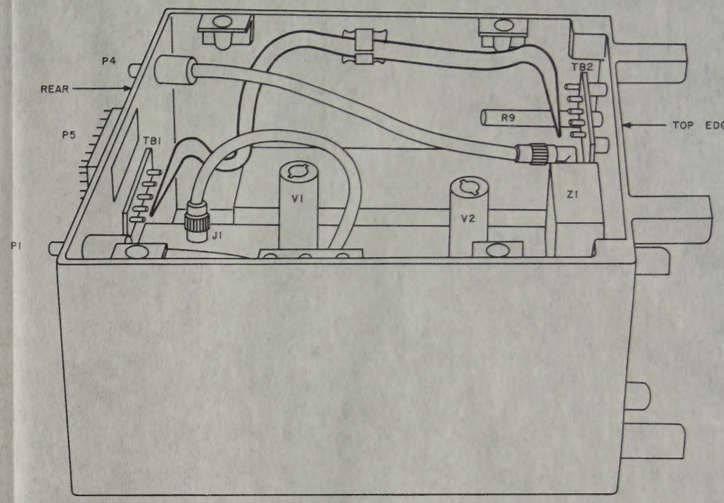
1. WIRING NOT OTHERWISE SPECIFIED IS 22 GAUGE WIRE WITH EXTRUDED NYLON JACKET.
2. ═══ DENOTES 20 GAUGE BARE TINNED ANNEALED COPPER WIRING.
3. WIRING NOT OTHERWISE SPECIFIED IS RUN LOOSE AND DRESSED BACK AGAINST THE CHASSIS IN THE MOST CONVENIENT MANNER.
4. THIS WIRING IS CONNECTED DIRECTLY FROM TERMINAL TO TERMINAL IN THE SHORTEST POSSIBLE MANNER.
5. BARE STRAP WIRING IS RUN AS SHORT AND AS DIRECT AS POSSIBLE.
6. ▭ DENOTES IMPREGNATED FIBRE GLASS SLEEVING.
7. THIS WIRING IS 18 GAUGE WIRE WITH EXTRUDED NYLON JACKET.

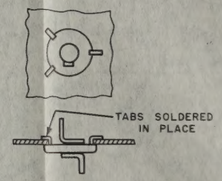
TM 687-333

Figure 306. Receiver power-supply plug-in assembly, wiring diagram.







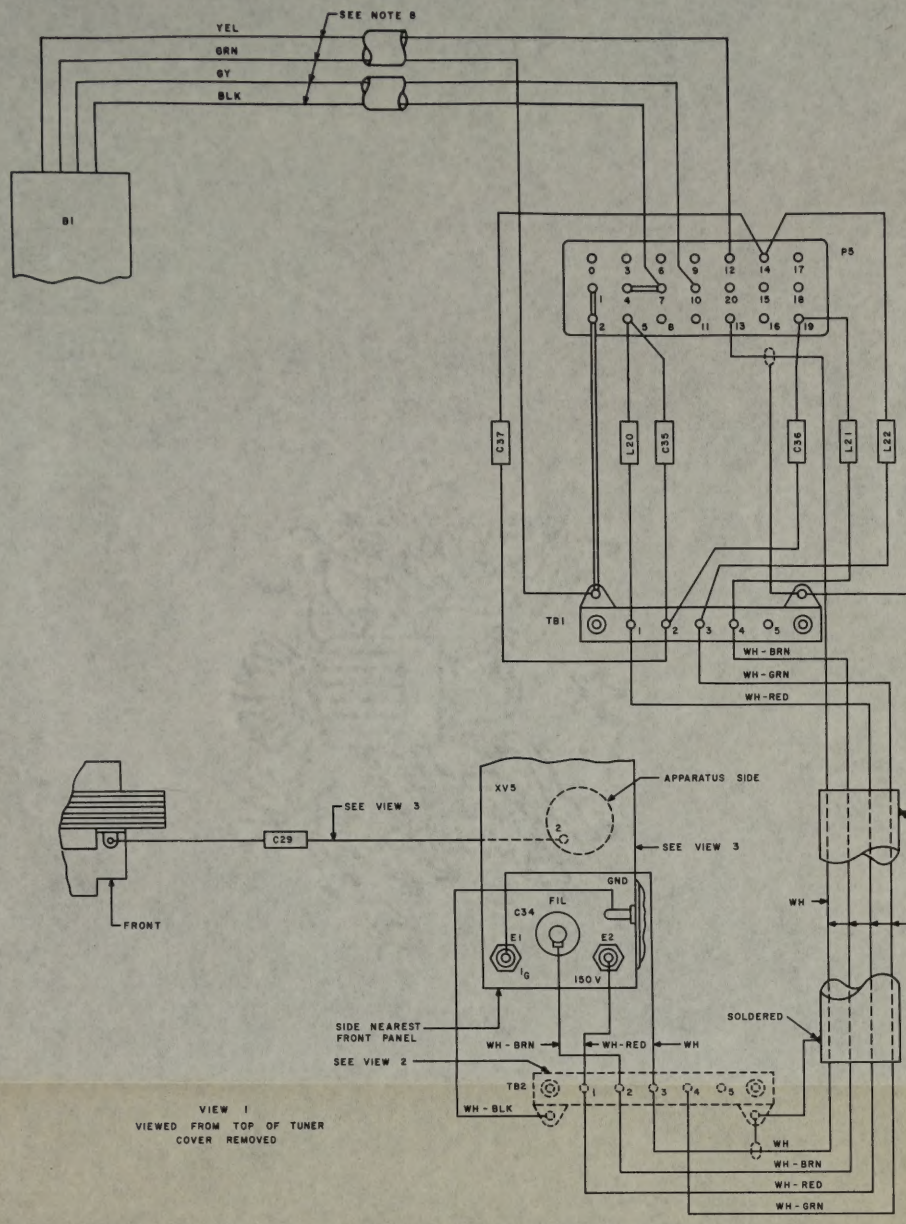


NOTES:

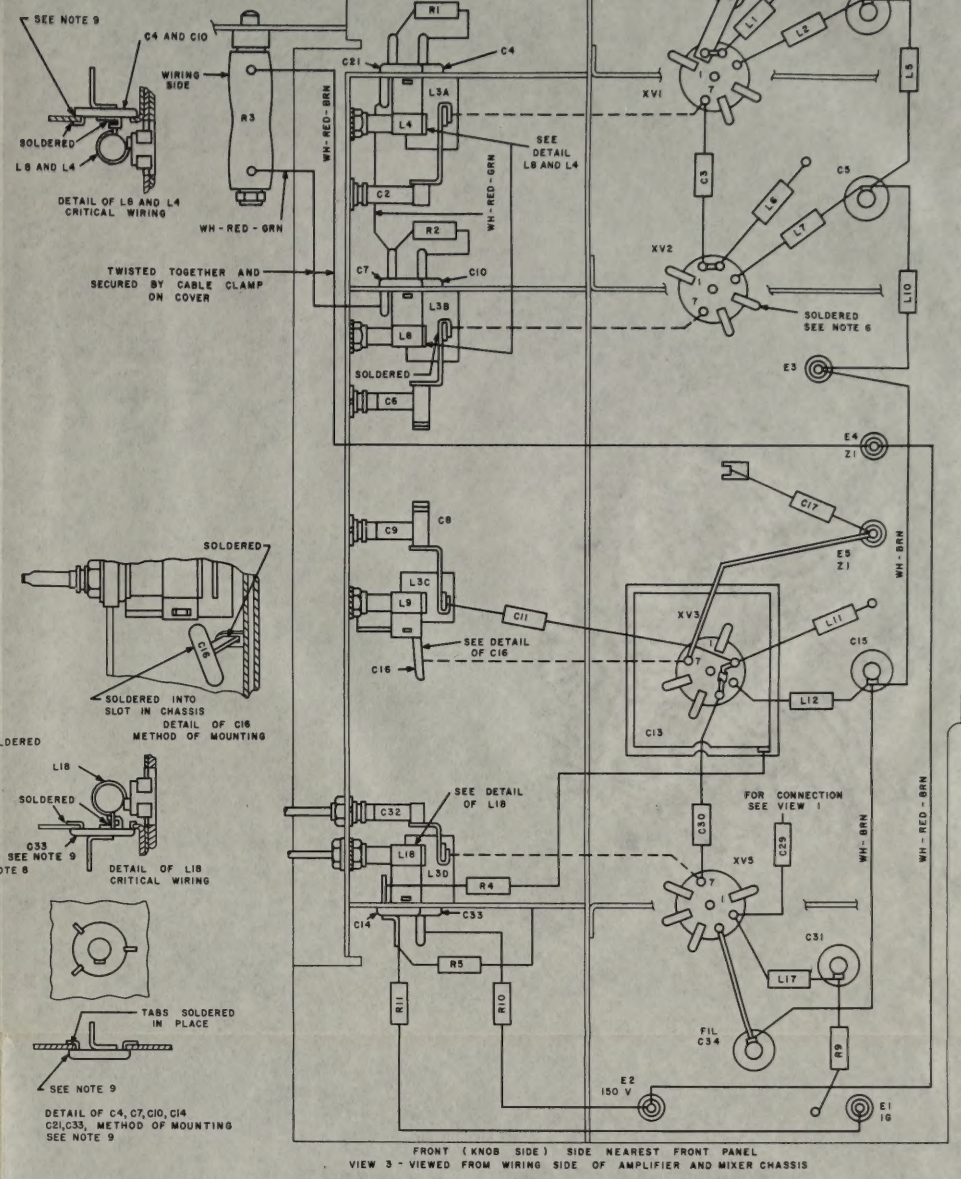
1. WIRING NOT OTHERWISE SPECIFIED IS 22 GAUGE WIRE WITH EXTRUDED NYLON JACKET.
2. ═══ DENOTES 20 GAUGE BARE TINNED ANNEALED COPPER WIRING.
3. WIRING NOT OTHERWISE SPECIFIED IS RUN LOOSE AND DRESSED BACK AGAINST THE CHASSIS IN THE MOST CONVENIENT MANNER.
4. BARE STRAP WIRING IS RUN AS SHORT AND AS DIRECT AS POSSIBLE.
5. THIS WIRING IS RUN IN A CABLE FORM.
6. THIS WIRE IS RUN THROUGH BRASS TUBING.
7. TERMINALS ARE BENT OVER AND SOLDERED FLAT AGAINST THE CHASSIS.
8. THIS WIRING IS 36 GAUGE COAXIAL CABLE.

Figure 307. Amplifier-Converter AM-913/TRC, wiring diagram.

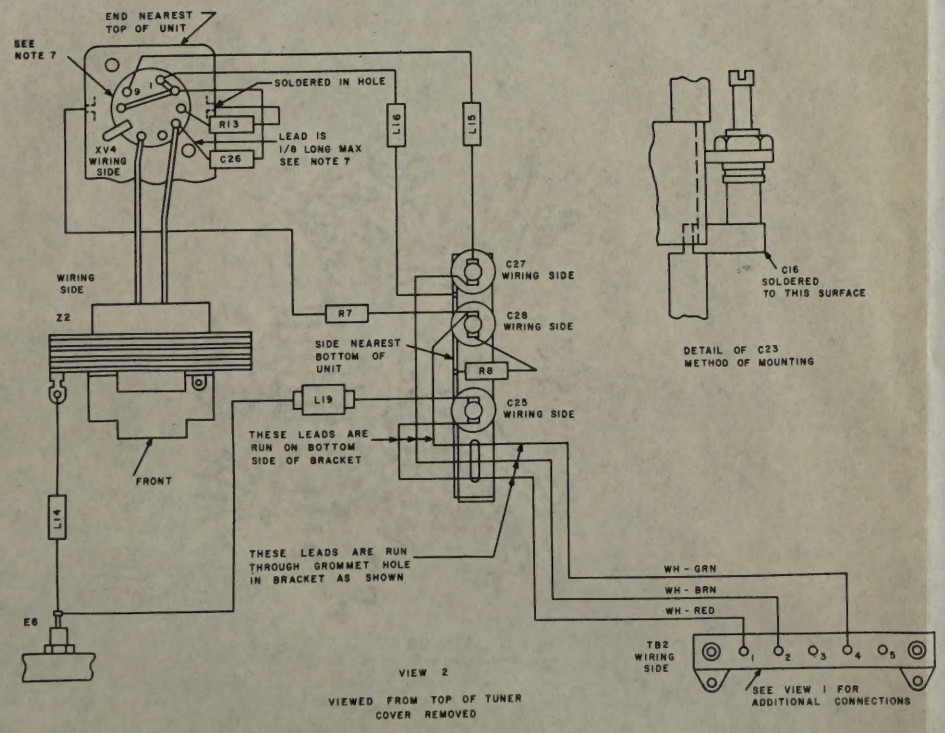
TM 687-334



VIEW 1
VIEWED FROM TOP OF TUNER
COVER REMOVED



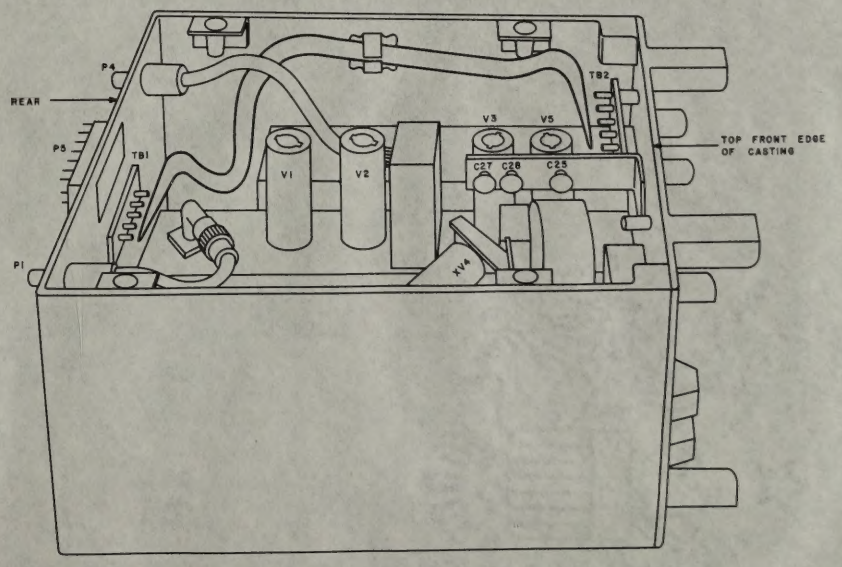
FRONT (KNOB SIDE) SIDE NEAREST FRONT PANEL
VIEW 3 - VIEWED FROM WIRING SIDE OF AMPLIFIER AND MIXER CHASSIS



VIEW 2

VIEWED FROM TOP OF TUNER
COVER REMOVED

DETAIL OF C23
METHOD OF MOUNTING



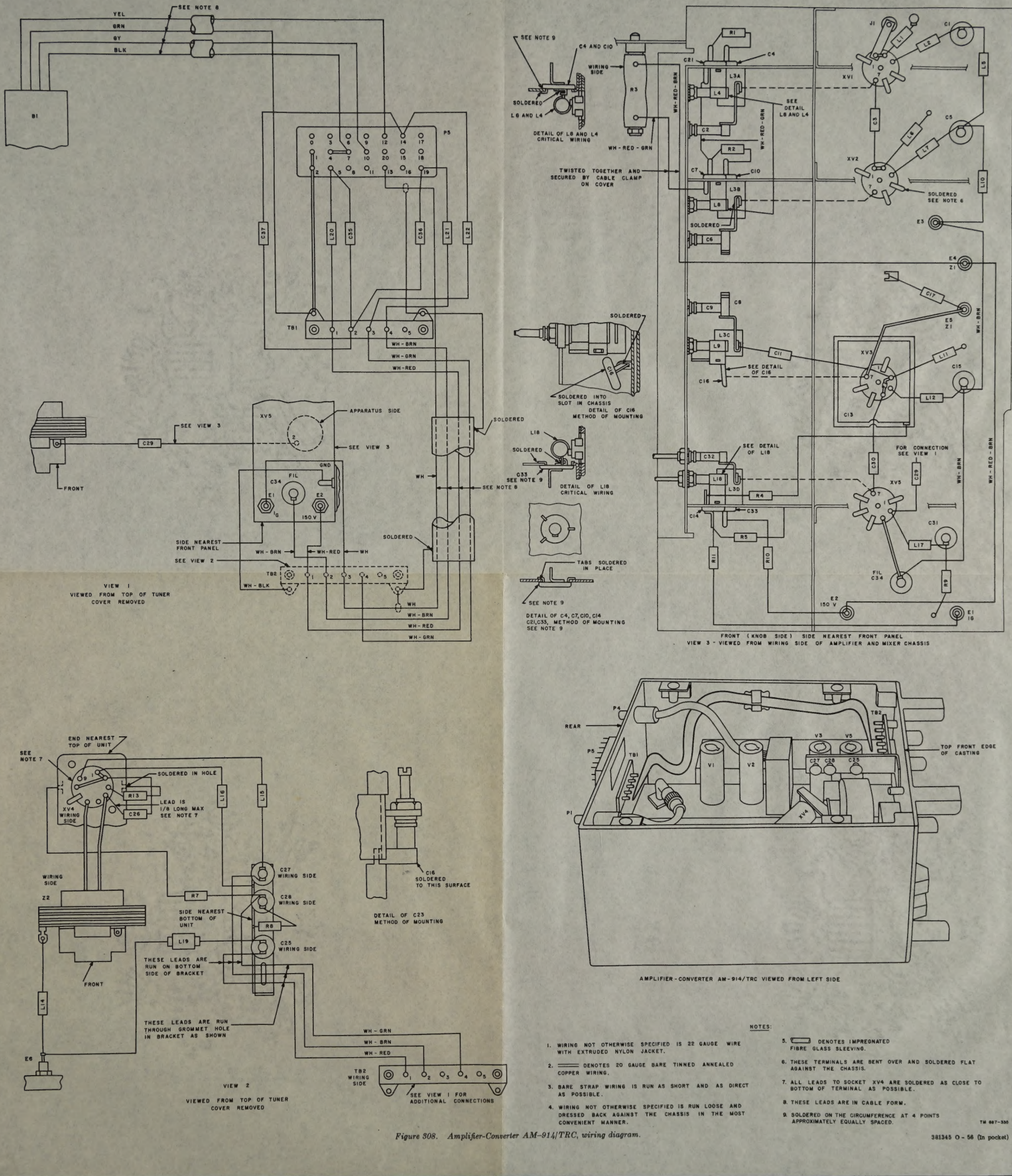
AMPLIFIER-CONVERTER AM-914/TRC VIEWED FROM LEFT SIDE

NOTES:

1. WIRING NOT OTHERWISE SPECIFIED IS 22 GAUGE WIRE WITH EXTRUDED NYLON JACKET.
2. ═══ DENOTES 20 GAUGE BARE TINNED ANNEALED COPPER WIRING.
3. BARE STRAP WIRING IS RUN AS SHORT AND AS DIRECT AS POSSIBLE.
4. WIRING NOT OTHERWISE SPECIFIED IS RUN LOOSE AND DRESSED BACK AGAINST THE CHASSIS IN THE MOST CONVENIENT MANNER.
5. ▭ DENOTES IMPREGNATED FIBRE GLASS SLEEVING.
6. THESE TERMINALS ARE BENT OVER AND SOLDERED FLAT AGAINST THE CHASSIS.
7. ALL LEADS TO SOCKET XV4 ARE SOLDERED AS CLOSE TO BOTTOM OF TERMINAL AS POSSIBLE.
8. THESE LEADS ARE IN CABLE FORM.
9. SOLDERED ON THE CIRCUMFERENCE AT 4 POINTS APPROXIMATELY EQUALLY SPACED.

TM 667-338

Figure 308. Amplifier-Converter AM-914/TRC, wiring diagram.



NOTES:

1. WIRING NOT OTHERWISE SPECIFIED IS 22 GAUGE WIRE WITH EXTRUDED NYLON JACKET.
2. ═══ DENOTES 20 GAUGE BARE TINNED ANNEALED COPPER WIRING.
3. BARE STRAP WIRING IS RUN AS SHORT AND AS DIRECT AS POSSIBLE.
4. WIRING NOT OTHERWISE SPECIFIED IS RUN LOOSE AND DRESSED BACK AGAINST THE CHASSIS IN THE MOST CONVENIENT MANNER.
5. ▭ DENOTES IMPREGNATED FIBRE GLASS SLEEVING.
6. THESE TERMINALS ARE BENT OVER AND SOLDERED FLAT AGAINST THE CHASSIS.
7. ALL LEADS TO SOCKET XV4 ARE SOLDERED AS CLOSE TO BOTTOM OF TERMINAL AS POSSIBLE.
8. THESE LEADS ARE IN CABLE FORM.
9. SOLDERED ON THE CIRCUMFERENCE AT 4 POINTS APPROXIMATELY EQUALLY SPACED.

TM 887-336

Figure 308. Amplifier-Converter AM-914/TRC, wiring diagram.